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Address of Welcome

By Claude R. Keyport, M.D.
Grayling, Michigan



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Industrial medicine as a true specialty has only been recognized as such in recent years. For many years if an employe received an injury, he was rushed to a surgeon for treatment and the surgeon automatically became an industrial surgeon. As time went on, many other phases were found to be very important in the field of Industrial Medicine. The industrialist not only wished to have his employes cared for in case of injury, but he learned that in order to obtain the maximum of efficiency and the greatest number of man-power hours from an employe, the said employe should be in the best of health. Further, the industrialist does not want his employes to be exposed to industrial diseases or occupational poisonings. On the other hand, labor equally demands the right to be employed in surroundings which are safe and as free as possible from these same industrial diseases and occupational poisonings.

Since our entry into World War II, greater demands than ever have been placed on industry and, just so, industry has placed more and more responsibility upon the Industrial Physician. With the comparatively small number of specialists devoting their full time to Industrial Medicine, it is quite natural that these men are associated with the larger industries of the nation,

MEMBERS of the Michigan Association of Industrial Physicians and Surgeons and Guests:

I am very happy to be here this morning and to say a few words of welcome to you. As you know, this is the second Postgraduate Industrial Medical and Surgical Conference sponsored by the Committee on Industrial Health of the Michigan State Medical Society, the Michigan Association of Industrial Physicians and Surgeons in coöperation with the Department of Postgraduate Medical Education of the University of Michigan and the Wayne University College of Medicine.

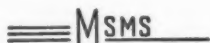
So that you all may be familiar with the personnel of the Michigan State Medical Society Committee on Industrial Health, I would like to again call your attention to the members of this committee:

Presented at the Second Annual Postgraduate Industrial Medical and Surgical Conference of the Committee on Industrial Health of the Michigan State Medical Society, Detroit, April 6, 1944

while the small manufacturer is about in the same position as the general practitioner of medicine who is not trained in this new specialty.

Last year when the first Postgraduate Industrial Medical and Surgical Conference was proposed, there was a question of just how well it would be attended since so many of our doctors were in the armed forces of our country and those at home so extremely busy; however, in the minds of Dr. Markuson and his committee, there was no doubt at all. It was most gratifying to know that the attendance was nearly twice as large as the committee had planned for.

I am happy to see such a large attendance today and I am sure that this meeting is going to be most beneficial to you men. I sincerely hope that the Industrial Health Committee of the Michigan State Medical Society will continue these Postgraduate Clinics and that each year more men from the ranks of general practice will avail themselves of the opportunity to learn more of this most important and rapidly developing field of medicine.



Newer Trends in Industrial Sanitation

By Mohe H. Solworth
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The Significance of Ordinary Dirt

Those of us in service industries seem often to have an humbler part to play in the business world than do manufacturers. Yet that very dis-

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tingtion permits us to regard critically the demands of those same manufacturers and of their consumer public because of our broader contacts. When a service demand comes into being or when it has developed into a complex operation, there will be sure to emerge consultants. I have the dubious distinction of being a consultant on DIRT, probably a new low in technical capacity!

Often garbed in many socially acceptable forms, for the most part harmless appearing, common dirt is the stuff I'm talking about. I do not even include specialized dirt—radium, cadmium, asbestos, cutting oils, silica, et cetera. I am spotlighting humble matter, which because of its comparatively hazardless nature, because of its chronic presence and ubiquitousness, is unsuspected and thus insidiously affects industrial life and operations—in short, ordinary dirt.

I am speaking of dirt which causes accidents—slippery oil on the floors, eye-irritating fly ash, fire-hazardous litter behind the staircase, explosive dust in the mill, electrocuting hose-water on the motors. Accidents thrive in dirt and disorder; and slackness in work habits—the human factor—is as much the result as the cause of poor house-keeping.

Dirt and health are incompatible. At the machine, dirty cutting oil plus dirty personal habits equal dermatitis. In the toilet, dirt carries alimentary filth on all the fixtures. In the air or on dirt-laden surfaces, dust acts as a vehicle for air-borne contagions. In the cafeteria dirt assumes many forms: the unclean hands of the food handlers, the improperly washed and stored dishes and utensils, the wild life in the form of cockroaches and rats, and the indiscriminate sprinkling of sodium fluoride in the pantry.

Plain dirt interferes with production. It may, through causation of accidents and illness at home or in the plant, keep men off the job. Or, by its presence it may so affect working conditions that the efficiency of men is reduced. Adequate light is fundamental to working efficiency of normal men; to the many millions having defective vision or older employees it is paramount. Dirt on electric fixtures, windows, and walls is the saboteur of light.

Mental attitude and morale are all-important in the output of the worker. Grimy buildings, filthy personnel facilities—restrooms, cafeterias, work areas, unkempt uniforms spell reduced interest and capacity. Yes, "morale is a lot of little

things" but none of these things is dirt. The Industrial Dirt-tax is high. It is exacted in the forms of depreciation, deterioration, breakdowns, compensation, insurance, illness, labor turnover, janitorial and sanitation costs, and insect and rodent depredations.

The dirt from industry carries far. It travels on the workmen to their homes. It travels in sub-standard products to the consumer. It belches forth from smoke stacks to mantle the community in soot and fly ash, millions of tons a year. It causes community ill-health, high living costs, lower real estate values. It breeds resentment and misunderstanding in the community where industry should be the leading force for good.

That's a lot of dirt, and enough for now. But it is an indication of the negative force draining and sabotaging industrial operations and growth. Against this all-pervasive, pernicious industrial strangulant we had heretofore marshalled no ameliorative counteractants. We scarcely recognized it as a significant problem. We perpetuated a sufferance toward what today is classified as part of "Corrective Sanitation"—a few unsupervised janitors without training, tools, or talent were supposed to remove the "infinite residue of social living" and working. This group, drawn from the lowest level of the industrial scale, was left to its own devices to rectify the mistakes of architects, engineers, and the slovenly work habits of fellow employees. No wonder that with so puny an attack against so insidious an adversary the results have been disappointing. In fact, our efforts and results have been so meager that many industrialists have accepted the accumulated dirt as an inevitable part and parcel of manufacturing.

This pseudo-sanitation, unorganized and uncontrolled, is rejected for many reasons—it was inefficient, wasteful, unscientific and unproductive. Moreover, it was ignorant of its functional position in industrial relationships, unaware of its potential force in industrial operations, and unconscious of its power for industrial good.

The New Profession

What to do about it? Well, this much we all know: American genius, once aware of the challenge to its world-famous industrial technique, will not be satisfied to sit idly by. Indeed, our faith in this technique already is being justified in the birth of a new profession—designed genet-

ically to eradicate dirt. It is the profession to be known as Industrial Sanitation.

Quietly, purposefully, it is emerging from the intricate web of scientific knowledge, comprising chemistry and physics, medicine and psychology, government and methodology which makes up our vast industrial pattern. You will see it come forth this year, in full panoply, equipped to meet and overcome the enervating drug of disorder—it will be, it is, the new stimulant of the industrial laboratory. This new profession is shaping into an organized body of knowledge and concepts with a philosophy, objectives, structure and functions. Its force is guided by a new principle, Controlled Sanitation. Controlled sanitation is simply a comprehensive modern medical diagnosis and treatment compared to the former chiropractic—astrological quackery method of handling, usually called "clean-up."

Our profession is not a panacea, but neither is it a voice crying in the wilderness. *The new industrial sanitation knows what it is doing.* It understands its problems—the nature of dirt and disorder, their omnipresence and continuous accumulation. It translates this understanding so that all industrial forces—management, technology, research, education—may be utilized in the endless war on dirt. It realizes that sanitation stands for something more than toilet-room cleanliness, polished floors, dust counts—that it reflects an attitude of mind, an appreciation of an advanced way of living and working.

Functions of Controlled Sanitation

Industrial sanitation embraces five important functions: Preventive, Corrective, Protective, Esthetic and Hygienic. Let us examine these critically one by one.

Preventive Sanitation.—Of these five, preventive sanitation is the keystone consideration, for upon its development and execution depend the level of achievement of the others. For example, to the extent that a good preventive sanitation program is effected, to that degree will the costly routine of corrective sanitation be eliminated. The program is predicated on the premise that much of the dirt and disorder can be prevented and need not be perennially cured by the cleaning operation. We are striving to develop preventive sanitation to the highest degree because it promises the maximum results.

Preventive sanitation may be divided into four

phases: Education, Architecture, Engineering, and Research.

Sanitation education reaches every individual in the plant. There can be no clean plants without clean workers. The efforts of even a trained sanitation department will be nullified if everyone in the plant does not contribute to the general plant cleanliness. To induce a coöperative attitude we have initiated a formalized program in which all of our employes take part. Through our classes we aid in the development of good work habits and improved personal hygiene. The use of slides, demonstrations and outlines in the lectures bring a new conception of personal and plant sanitation. When the employe is shown how much of this program is designed for his welfare and development—the provision of light, clean, attractive surroundings—the most modern facilities, the considerable scientific effort devoted to these aims and that not only he, but the plant manager, is also attending sessions and learning how to help keep the plant clean—his interest is quickened from a passive, sometimes negativistic, attitude, to an active participation. It is our job to maintain this mental excitement, unobtrusively, of course, among the entire personnel from manager to laborer.

After we have influenced the human element in our preventive sanitation effort we turn to architecture. Here we find that architects simply have not designed buildings which exclude dirt or which can be maintained economically. A rubber tile floor in the cafeteria kitchen will not stand up under the constant moppings necessary in this area. Subsequently the floor has to be replaced by a granolithic hard floor with drains. Few architects seem to understand that buildings need daily cleaning; consequently, as a result there never is sufficient provision for janitor closets or supply rooms. Though why the architect should overlook this thought when the buildings he creates are conducive to insanitation, escapes us. This oversight, this defection, has several resultant implications. The cleaning is more costly since the janitor has to cover great distances merely changing mop water, or else the job results will be poor because the man will be reluctant to walk the extra steps for fresh water. Where to put brooms, mops, cleaning tools, supplies? Why, nowhere. The architects forgot that small conveniently located storage closets would reduce the costly labor factor. The result: mops and

brooms and buckets cluttering up the corners of the buildings adding to the unattractiveness which they were supplied to eliminate.

Sanitation now guides the architect in many considerations: cleanable floors, walls and windows; the elimination of horizontal dust-catching surfaces, the provision of flush moldings. We advocate the use of rounded corners for ease in cleaning. We suggest construction which will eliminate insect and rodent infestation. We are even designing model supply and water-change cabinets as prefabricated units for plants now deficient in this important facility.

In seeking the sources of dirt for preventive sanitation we turn to the engineer. The smoke stack erupting soot and fly ash is a considerable problem which must be solved if we are to maintain adequate industrial environments. Precipitrons, and other devices should be more commonly available after the war to remove this source of filth. Equipment in the factory should be designed to cause less dirt through spillage and leakage. The proper operation of these machines should be taught so that operators can run them in a cleanly manner. Moreover, machines should be constructed so that they may be cleaned more easily. The location of equipment and proper ventilating devices also affect this source of industrial dirt.

Research is primarily directed at preventive sanitation practice. We study fungicides for prevention of mold; floors for wear and appearance; paint for durability; cleaning products for effect on surfaces. Our engineers, chemists, and bacteriologists are continuously working in the direction of elimination of fundamental causes of insanitation rather than unpromising chronic corrective efforts.

Corrective Sanitation.—Corrective sanitation is the least productive of the functions of the new industrial sanitation. Even up-graded with tools, knowledge and research to a far more effective instrument for removing dirt and disorder, it serves to a great extent as an unnecessary function. The use of a lower paid group of individuals, usually called "janitors" to rectify the mistakes of engineers, architects and maintenance men is not acceptable as a permanent solution. But as long as human inefficiencies and different levels of achievement remain we will still require a staff for corrective sanitation. Therefore, we do not overlook the opportunity for improving

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the quality and amount of work performed by this group. Promoting interest in wanting to work is our first consideration; how to work, our next. Time-motion studies for more effective coverage and lessened labor costs; the supply and use of proper chemicals for improved results and protection of surfaces; the supply and use of better tools—aid in the controlled elimination effort.

Sanitors are not the only group engaged in dirt removal. Operators are responsible for the cleanliness of their equipment and the surrounding area. Slovenly work habits are decreased when a man is made responsible for cleaning his own messes.

But dirt—its prevention and removal—is not our only concern. We are also interested in employee health, plant preservation, and industrial esthetics.

Conservation.—Our role in plant conservation and preservation stems from two considerations, protection and costs.

Surfaces wear, even when soil is not present. It is sanitation's function to protect finishes, fixtures, flooring, and equipment with coatings of wax, paint and polishes. Harmful cleaning products or methods must be eliminated. Floorings, for instance, are usually washed out through improper materials and procedures rather than worn out from usage.

Salvage of discarded materials is of national importance today. Many a plant is now operating because of a good salvage program which supplies the parts to sustain production.

A good protective maintenance program keeps buildings in adequate repair. Our sanitationists, supervisors, and sanitors are required to report leaks, spillings, rusting, broken windows, et cetera. These are repaired immediately before they magnify into serious complications.

Esthetics.—The almost inevitable results of cleanliness and order are sensory and esthetic satisfactions derived from a satisfactory and challenging appearance. In fact, much, if not most, of this world's cleaning is directed to the ideal, not of health, cleanliness or order, but appearance. In domestic and social life, keeping up with the Joneses and maintaining appearances are one and the same.

The new sanitation, however, has an industrial esthetic function beyond the enhancement which removal of dirt and disorder presents. Before

their installation the sanitationist exerts an influence on the selection of walls, floors, metal decorations, color schemes, and lawns. The choice and placement of office furniture is also within his jurisdiction. Neat, attractive uniforms contribute further to the plant appearance. Moreover, through daily plant inspections, adherence to paint schedules and the follow-up of work orders insure the maintenance of esthetic standards.

If this profession is executing new functions, it is also creating responsibilities through its making possible new levels of environmental work atmosphere.

Willkie and Blankmeyer, in their forthcoming *Outline for Industry*, point out:

"To sharpen the perceptions of men and women is to invite new hungers which demand more godlike food. When one becomes aware of the benefits of orderliness, he casts a more critical eye about his surroundings. Objects that once he took for granted as landmarks inherent to his environment become irritating and obnoxious. A path beaten across the grass by unheeded feet—a blatant calendar hung on the wall as a substitute for art—piping dodging across a room in haphazard pattern and supported by rusty iron straps—these, and a thousand more excrescences like them, impress their crudeness on the human mind. It is not too much to ask that buildings be pleasant to the sight, that lawns and shrubbery contribute to a setting which will endear a man to his labor. It is worth an initial effort to plan the location of equipment, and the expense of bringing its manifold arteries into a master control board, if these things will contribute to an atmosphere of dignity and reflection for the persons who inhabit it. It is obvious that these things are good public relations from a standpoint of making visitors at ease in the midst of operations. But it is far more important that those who work and those who administer, those who create and those who serve, find themselves in a way of life contributing to the formal precepts of civilization."

Can such a higher way of living be construed as other than beneficial as it radiates from the industrial scene to the home and the community, even to the closer neighbors of our coming world?

Hygienic Sanitation.—The fifth function of an industrial sanitation program is hygienic sanitation, the health protection and promotion of plant personnel.

For protection against contamination we clean and disinfect toilet facilities, lavatory and locker installations, drinking fountains and infirmaries. Athlete's foot control is within our departmental function.

Through preventive and removal measures we eliminate dust, and thus reduce the possibilities of air-borne contagions. Dust removal also serves to reduce eye and nose irritations and infections. The maintenance of the highest sanitary standards in the cafeteria—the care of the utensils, dishes, glasses; the habits of the food handlers; the storage of food and disposal of waste—are within our province.

Industrial sanitation assists in life conservation by entering into many phases of the safety program. In its housekeeping function it determines the correct storage positions for poisonous, inflammable or otherwise hazardous materials. By maintaining orderly and safe areas many falls and accidents are prevented. The removal of rubbish and trash minimizes fire hazards. The cleaning of windows and light fixtures provides safer work conditions. In many plants dusts are constant explosive possibilities. Sanitation and housekeeping are major factors in preventing such explosions.

The Comfort Level is also assured through sanitation's role in the advocacy of proper floorings, primarily for cleanability, but also for resiliency, appearance, and noise transmission. Wall surfaces properly selected likewise contribute the beneficial effects of glare-free color harmonies and reduced sound transmission. Sanitation also exercises some beneficial jurisdiction over light—windows, fixtures, paints—and ventilation. Thus, with many considerations in mind, the selection of comfort-increasing facilities, fixtures and furniture adds to the well-being of the employee.

Of greater significance to us than the protection against possible lurking micro-organisms is our role in the promotion of good health habits. The contraction of syphilis and gonorrhea from toilet seats is rather remote but the revulsion induced by filthy toilet arrangements which results in not using the toilets, is not remote. Invitingly clean facilities encourage good toilet habits. Not only provide them but keep them clean and you stimulate levels of cleanness resulting in lowered dermatitis incidence and increased health tone. Immaculate uniforms become translated into desire for cleaner street and home dress.

Cafeteria sanitation has more than a protective function in the cafeteria kitchen. In the dining room, cleanliness, orderliness and pleasant surroundings encourage the worker to eat and

benefit from his food in the safe company cafeteria rather than the unregulated "Greasy Spoon."

Happily, there is a rising emphasis on industrial health education. But health education without the "health atmosphere" of a challenging environment is incomplete. Sanitation, however, does not content itself with physical equipment and its potential influence on the habits of personnel. It actually promotes instruction. Personal hygiene education in our plants was initiated originally for environmental reasons. But environmental sanitation has for one of its important objectives the protection and promotion of the health of the personnel. Each end is mutually dependent and cannot be successful without the other. Their interdependency assures a concerted attack promising higher achievement.

The health habits promoted by the plant will not be confined to the plant. They will tend to be transferred to the home and community of which the plant is a part.

The picture will be balanced. How a man lives and where he lives markedly affect his activity (both in quality and quantity) in the industrial plant. His productive capacity, his efficiency, his thinking processes, his health, his accident incidence, are considerably affected by the home factor.

Enlightened industrial sanitation can help achieve the higher capacity levels by serving as an environmental model and promoting the formation of better health habits.

Industrial Sanitation and Industrial Medicine

The reasons for industrial health programs are greater now than ever before in our history. The opportunity for the industrial health movement will be vastly greater in the future. The growth will be based on the control and solution of the problems incident to industrial health. The control will depend on the utilization of the new tools available. One of these tools is industrial sanitation.

This new endeavor, industrial sanitation, is going to clean up the industrial environment. It is going to reduce costs, boost production, insure safety, and protect and promote personnel health. It is going to affect industrial operations, the individual, the home, the community and the nation. With your guidance and direction it will do a more effective job more quickly. Why not

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take advantage of this new industrial aid? Why not put this new but growing industrial force, its research and technical development to work under your auspices?

In the prevention of industrial illness there must be an integrated program of attack. Sanitation is only one of the factors but it should not be overlooked. To the extent that this new program is effective—and its utilization of architecture, engineering, education and research insures its reaching a new level—to that degree will many of the curative functions of industrial medicine be outmoded. Fewer accidents, less illness, higher morale—yes, even better home conditions will contribute to a higher degree of worker health levels.

In all industrial health codes and delineations of a plant physician's duties, plant sanitation is always included. Yet how many physicians are intimately acquainted with the plant conditions, the organization or technology dedicated to the housekeeping and sanitation in their plant or the new dynamics and conceptions which could be utilized in a controlled sanitation program so vital to the productivity, health, and safety maintenance of their personnel?

In the future the results of the entire health program will be more measurable, and the plant physician with an effective comprehensive program which results in high industrial benefits and low compensation, absenteeism, accidents, and other drains, will be of greater aid to industry and in greater industrial demand.

Sanitize (I was about to say "clean," but the new sanitation is more than cleaning) your plants the new way and you'll have a healthier, safer, happier personnel. Moreover, while achieving the objectives of human maintenance and productivity you'll be accomplishing some other equally important ends—higher machine efficiency and production, reduced costs, enhanced plant appearance, and elevation of industry's role in the community.

Our purpose is not to increase the duties or responsibilities of plant doctors during this war period when we are so handicapped for industrial physicians.

We are suggesting assistance in the person of the Industrial Sanitationist and an improved staff to eliminate physical and psychological health deterrents in the work environment and promote health habits through immaculate, safe lavatories

and locker rooms, uniforms, inviting cafeterias, and sanitary infirmaries. The training and scientific study requisite to the new industrial sanitationist would make him an extremely valuable adjunct in a health program. The very nature of his work takes him and his staff to every corner of the plant. The preventive purposiveness of his work is designed to remove health and morale reducers before they may be serious.

The New Interpreters

One project included in the future planning of industrial sanitation is the provision of trained personnel for industry. The most essential need calls for the new professional, the industrial sanitationist. To supply this need there is planned a postgraduate school and research center for engineers, chemists, and similar technical students. The plans are for immediate inception right after the war. At present a campus location in Louisville is being chosen for the school. The probable enrollment will be composed of about twenty-five students with the prerequisite technical background. The course, consisting of an intensive year's training, will include Bacteriology, Chemistry of Cleaning, Soaps, Detergents, Wetting Agents, Materials, several Engineering Studies, Time-Motion Projects, Architecture, Landscaping, Industrial Decoration, Personnel Management, Personnel Coördination, Teaching Methods, Statistics and Records, Cost Control, Safety, Industrial Hygiene—all specifically treated with respect to industrial sanitation. There will be actual industrial laboratory work, research problems, and emphasis on writing of reports, for the new profession must be articulate.

The faculty will consist of several industrial sanitationists, and professors from the universities within the immediate vicinity, the Universities of Louisville, Kentucky, Indiana and Purdue. Also, we hope to attract national leaders from industrial medicine, industrial hygiene, safety and other related professions to visit us for seminars devoted to their particular specialties so that the students may gain the richest preparation for top-notch execution. The students, whom we shall select carefully, will not only receive this intensive detailed training by industrial practitioners but will also work for three months in industry, with pay, putting in practice what they have been learning while also becoming

ing accustomed to industrial values and arrangements. They will become familiar with the manufacture of products used in their profession by actually assisting in the compounding and processing in a model plant.

Our graduate will be a capable figure. He will be able to demonstrate with his hands—he will be a craftsman; he will plan and execute his program—he will be an executive; he will be an efficient leader and handler of men—an industrial diplomat; he will utilize science and scientific methods to achieve his objectives—a scientist; above all he will be a well rounded, industrially apt professionalist, not a hothouse theoretician.

One further practical aspect—there will be excellent jobs waiting for the new industrial sanitationist. Nor will his study and scientific development cease upon graduation. He will maintain contact with the school through individual in-service research projects the results of which will contribute to the knowledge of all. Refresher courses will be available to maintain technical grasp.

Soon, this industrial field will no longer be without adequate information sources. Books will be available to supply background and technological information on every phase of plant sanitation. A journal of *Industrial Sanitation* will serve as a monthly exchange center for original research and articles of current interest by leaders in this and related professions.

External Aspects

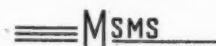
Industry is much broader and more pervasive than a mere building and machinery and workmen. It is a factor of society cooperating and interlocking economically with all the rest of society and contributing to that society.

But its economic character and relationships are not the whole of industry. The moment it touches government it assumes a political nature, and through its own personnel, as well as through its socially useful product, it is a social institution. It creates a community of social and domestic life in the factory neighborhood. It is a community of social life within the factory walls. These communities cannot be separated one from another. The industrial efficiencies, habits, morale of the workers—who spend fully half their waking hours at the plant—are inevitably carried home and translated in greater or

less degree in terms of domestic well-being and happiness. Industry as an economic factor cannot retire into this isolated aspect of itself and be nothing more. It is much more. It touches the life of the nation at many points.

Industrial sanitation is one of the new building stones with which a permanently successful industry can be erected; on the one hand through improved operations and increased profits; on the other, through the altruistic leadership demanded of industry today in our democracy. The dominant role of industry can be assured only through a more enlightened self-interest and the most practical and intelligent altruism.

Industrial leadership implies a responsibility for standards of living, working, housing and community excellence and thus affords an opportunity for great national good. We believe by providing an environmental model, industrial health education, the most modern facilities, and by leading the way in removing health nuisances—industry may discharge its responsibilities in this direction. Controlled sanitation, the new industrial instrument, is available to contribute its expanding force in support of industry's role.



The Psychiatric Approach to Current Mental Health Problems in Industry

By L. E. Himler, M.D.
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- As Dr. Frank F. Tallman stated at this conference a year ago, psychiatry and industry must learn to speak the same language if they

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are to work together successfully. Industry justifiably expects psychiatry to translate its thinking into concepts which management can understand, and welcomes evidence that psychiatric methods can bring about desired improvements in industrial human relations. In some respects the psychiatric approach is itself in the process of being "retooled" to fit into this relatively new setting. The task immediately before the industrial psychiatrist today is that of an integrator who coordinates the contributions of medicine, psychology, social case work, and education, so that they can be made to bear effectively on the personality, adjustment, and productivity of the individual worker.

Ample statistical evidence is available from institutional, extramural, and military psychiatry to indicate how great industry's stake is in the mental health of its workers and potential employees. Considering first only those individuals who develop serious mental disorders, a recent study in New York state revealed that one person out of twelve can be expected to spend some part of his life in a mental hospital. With reference next to the less severe nervous conditions found in the civilian male population, a study of 300 Wayne County selectees made in the summer of 1943 revealed that the proportion rejected for neuropsychiatric and psychosomatic disorders together reached slightly over fifty per cent. Furthermore, of the 70,000 World War II veterans now being returned to civilian life each month, at least 25,000 are neuropsychiatric casualties.

It is thus apparent that from both the rejected and the discharged groups, one-third to one-half of the men now being made available for employment have some type of mental health problem which would interfere with their usefulness to the armed forces. Naturally all of these men are not by the same token unfit for industrial employment. Among the 300 Wayne County rejectees mentioned, 88 per cent were employed at the time of their examination and expected to continue in their jobs. While accurate figures are not available at this time, it is probable that the proportion of employable men discharged from military service will fall somewhat below that number. In any event, it is inevitable that many of those who developed nervous and mental symptoms under military life will have readjustment problems of some degree when they

return to their peacetime jobs. At the present time there is no reason to doubt Giberson's estimate that one man out of every five employed in industry would profit from psychiatric guidance and control.

As Anderson has said, the task of psychiatry in industry is much less that of providing clinical services for individual problem workers than it is to integrate its techniques with all personnel procedures connected with employment, placement, training, promotion, or discharge of employees. Psychiatrists must teach and provide clinical training in a point of view which will constructively influence human relationships on all levels of the industrial hierarchy. The point of origin from which this influence should radiate is logically the department which supervises medical and personnel work. Here the psychiatric approach can be effectively worked out in collaboration with those who are already concerned with human relations—the employment manager, the safety director, the women's counsellor, foremen, union committeemen, and executives in charge of in-plant training.

So far as medical therapy in individual cases is concerned, as Doctor Selby has stated, industrial physicians are as aware as general practitioners of the fact that every patient who consults them has in some degree a mental hygiene problem, and in so far as physicians take opportunity to listen sympathetically to the men and women who consult them, they are already employing a very practical type of psychotherapy. The skillful physician knows how to dispel apprehension over symptoms which have no significance medically. He realizes the importance of attention to personality factors in accident-prone workers. Insufficient time, and occasionally a too narrowly restricted interest in purely organic aspects of illness are the chief limitations to the industrial physician's function as psychotherapist. The training of nurses could also be extended to include more work in this field.

But beyond this, industrial psychiatry as a specialty must concern itself with a wider variety of personnel problems than those which come directly or indirectly to the attention of the medical department. Many major and minor mental health problems may lie concealed under other organizational or production troubles and these come to the physician only incidentally if at all. Absenteeism and turnover are two of the

more widely publicized perennial industrial problems in this category. Poorly handled personnel problems all too frequently terminate with employment obituaries such as "bad work habits," "dissatisfied with every job given," "antagonizes everyone in the department," "frequently late," "no interest in the work," "too many personality clashes," or "refuses to take orders." Studies of such job separations reveal again and again that personal and social maladjustment is much oftener the cause than lack of occupational skills. As Dr. Ralph Lee might say, it is "humanics" rather than "mechanics" which lies at the bottom of so many industrial ills. So far as it is humanly possible, our task is to get rid of the symptoms rather than the employee.

The great amount of wasted effort, expense, and blasted hope which results from improper selection is too well known to need re-emphasis here. It is because of this that the employment office offers one of the most strategic spots for the utilization of psychiatric techniques. Employment managers are keenly aware of the necessity of improving their selection methods, no matter whether they are drawing from the top or the bottom of the labor market. Successful selection and placement depend on "the ability to recognize ability," and a capacity for judging skills and appraising personality attributes along with physical health factors. Working as a team, the physician and employment interviewer must frequently make decisions concerning the same borderline psychiatric conditions which the induction station psychiatrist must prevent from entering military service. In this category are applicants with marginal intelligence, tendencies to alcoholism, psychopathic personality, epilepsy, various types and degrees of psychoneurosis, and pre- or post-schizophrenia. Unstable, inefficient, undependable and poorly integrated personalities do not come labeled as such—on the contrary, they sometimes manage to obtain good recommendations which are intended to help them. It can be readily seen that some practical orientation in psychiatry is essential if employment practices are to be conducted on a truly efficient basis.

The obligation which industry has assumed in regard to employing discharged servicemen has placed a new responsibility on the employment interviewer and the medical examiner. The absence of information beyond the man's own

statement concerning the cause for discharge presents perplexing problems to prospective employers. The only safe procedure to adopt in this situation is to thoroughly examine each individual applicant, using the full case study method, with special attention to personality-determined factors. Knowledge that a man has been discharged under Sections 2, 8, or 10, or that he had "psychoneurosis, mixed type," should not prejudice the interviewer against the man's eligibility for employment. It is as true of mental and emotional as of physical disorders that not all conditions which render a man unfit for military service will necessarily interfere with industrial adjustment. This is particularly true of psychoneurosis, which comes first among all medical causes for military discharge. The employment examiner's duty is clearly one of judging each man on his individual merits, and this task is greatly facilitated by even an elementary understanding of psychiatric principles.

Industrial physicians as well as all others who make decisions concerning employment have need for simple, efficient, and practical selection techniques which are not unduly time consuming. Aside from the physical examination, the three instruments commonly used for this purpose are application blanks, psychological tests, and personal interviews. It is my opinion that application forms, no matter how detailed, and precision tests, no matter how ingenious, can never adequately substitute for good interview technique. Effective employment interviewing presupposes both academic and practical training in the diagnostic techniques of psychiatry. Certainly much more is involved than witness-stand cross-examination, trick questions, or mere passive listening. The basic information necessary for an employment personality appraisal falls into the same five or six categories that are used by the psychiatrist in considering a man's suitability for military service. These include his educational record, his previous work adjustment, his physical and mental health, the family setting and influences, and the applicant's attitude toward the prospective job.

By a streamlined adaptation of the case history method, and by employing the clinician's way of looking, seeing, listening, and, so to speak, feeling himself into the applicant's place, the trained observer gets an insight into fundamental motives, habits and intentions which far

surpasses stereotyped question-and-answer procedures. The truly diagnostic interview has a three-dimensional quality, with an ear to past conditioning factors and an eye figuratively on future implications, while the hands are intimately in touch with the presenting situation, drawing out and "sampling" typical personality reactions. Interviewing in such a manner makes it possible to construct, appraise, and utilize, as it were, a "human flow chart" which gives a scientifically valid basis for judging and predicting the outcome of behavior.

The Interview

From what has been said above it is evident that effective interviewing techniques are essential to all industrial personnel functions, and this is even more true when the aim is to change attitudes and habits, that is, when the therapeutic aspect is the primary consideration. Interviewing the returning absentee can be used to illustrate this point. The success of such an interview depends not at all upon making the worker feel he is "on the spot" and in this way extract from him the "real" rather than the "cooked-up" reason for absence. On the contrary, the worker must be made to feel the interviewer's conviction that absenteeism by and large is a symptom of the worker's attitude, and that from this point of view management has a keen interest in knowing how absence reflects on its policies and procedures, so that effort can be made to remove or correct causative factors. The atmosphere which the interviewer strives to create is that of the consulting room, not the courtroom, and the worker must feel that a checkup on attendance, like taking his pulse, is motivated by a genuine interest in his behalf. Attendance records in industry are as indispensable as temperature charts in medicine, and any elevation in nonreported absences should be regarded as a sensitive index of declining morale. Obviously when there is an epidemic of absences in one department, the supervisor may be the disease vector. The trained interviewer not only avoids stirring up resentment in workers who have a legitimate excuse and a good previous attendance record, but by recognizing these factors he conveys a sense of management's pride in the regular workers.

It is to be hoped that industry will not overlook the true significance of attendance problems

after the current war-inspired interest has subsided, for to do this would be equivalent to discarding what is now a valuable indicator of plant morale. Reminiscent of post-mortem examinations in medicine, properly conducted exit interviews can also bring into sharp focus certain selection and management practices that have failed. It should be emphasized, however, that attendance and exit interviewing must be done by one who is not only thoroughly familiar with plant practices but is also adequately trained in the correct technique, otherwise the contacts will be ineffectual and the data gathered will be of little more value than that obtained by ordinary questionnaire methods.

Disturbed human relationships within a plant are apt to come first to the attention of supervisors and foremen, just as in military service behavior maladjustments are first discovered by the line officers. Understanding of the psychiatric approach in interviewing would be greatly helpful to such minor executives in their on-the-job relationships. The job relations training courses now in vogue have made many foremen keenly aware of the importance of human relations in their daily work, but have also made some sensitive to their limitations. Others have protected themselves from mistakes by taking recourse to overformalized contacts with their men. In order to gain fuller understanding and confidence in specific interviewing procedures, foremen should have opportunities for on-the-job consultational training in the handling of actual cases. Direct experience gained in applying and modifying their own techniques under apprenticeship type of guidance would stimulate closer contacts between foremen and the varieties of personalities they seek to control and direct.

Among returning war veterans there will be a certain number who are still in the process of recovering from the effects of the physical, mental or emotional trauma they have undergone. From preliminary observations it would appear that as many as two out of five will have at least a temporary period of impaired work adjustment. Some of these men will show heightened sensitiveness, more than usual restlessness, dissatisfaction, discontent, and occasionally an attitude of defiance toward accepted procedures. A few will feel entitled to special privileges and make issues out of minor disagreements. Some

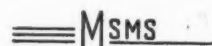
will be handicapped by neurotic reactions, a few younger, immature youths will be frankly spoiled, and another group will reflect negative conditioning toward the psychiatric approach because of their military experiences. In all contacts with such men, emphasis should be placed on the need to appreciate and accept them for the positive assets they possess, rather than what they lack. Relationships on the job may at times be difficult or delicate, progress may be slow, and in certain instances cautious modifications of management procedures will be necessary, but complications of this type only serve to re-emphasize the importance of sound interviewing techniques. Foremen should give special attention to the work adjustment of returning servicemen during the uncertain and sometimes trying "break-in" period.

Interviews which touch on deeper emotional material can be compared in some ways to a minor surgical procedure, such as opening a subcutaneous abscess. While the drainage provided may give immediate relief, arrangements for follow-up visits are necessary until the wound has healed and all complications have been prevented. It is unfortunately true that occasionally some symptoms (such as drinking) are apt to be increased as if in protest to any step which brings underlying conflicts uncomfortably near the surface of conscious awareness. Such difficulties may arise for instance in inadequate, alcoholic, paranoid or constitutionally defective personalities, or other marginal workers who tend to make up the relatively small group responsible for a disproportionately high percentage of absences, discharges and quits. Situations of this kind serve to illustrate the limitations of therapeutic interviews in the industrial setting, and the necessity of referring individuals having deep-seated mental health problems to community personnel and agencies offering psychiatric care.

In conclusion, while psychiatry does not offer ready-made solutions to industry's manifold problems, in the field of human relations it does offer an approach and a technique for constructively influencing interpersonal contacts on all levels of the industrial social pyramid. Diagnostic and therapeutic interviewing techniques are not only being tooled to meet industry's changing needs, but they can be taught and effectively demonstrated "on-the-job."

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Prevention of Epidemics of Dermatitis in Industry Including Dermatophytosis

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■ NEARLY all of the cases of industrial dermatitis are due to chemical agents. Physical agents and bacteria including the higher fungi play a minor role.

In order to prevent or control an outbreak of industrial dermatitis it is necessary to have a sound knowledge of (1) the industrial process, i.e., the worker's industrial environment; (2) the chemicals encountered by the worker which are capable of producing a dermatitis, and (3) the mechanism by which these chemicals produce the dermatitis. With these facts thoroughly under-

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stood, logical methods for prevention, control and treatment can be instituted.

While most of the phases of a control program can be worked out by the industrial physician, other phases need the coöperation of the industrial engineer and the chemist. In planning our program, we must always bear in mind that the coöperation of the worker is essential. Proper instruction of the worker in the best possible use of the preventive equipment should be a part of the program of prevention. In many instances the last can only be accomplished by continuous supervision.

It is almost superfluous to state that a proper appreciation of a worker's industrial environment can only be made by plant visits. Yet many physicians attempt to diagnose and treat industrial diseases without once inspecting the factory where their patients are employed. Even when the industrial hazards which may produce dermatitis are apparently well understood and seem to be well controlled, outbreaks of dermatitis may still occur due to a change in processes so that the known irritants are being contacted in new ways. In some instances, irritants which were infrequent causes of dermatitis become important factors in dermatitis production because of the sudden acceleration or expansion of the work so that greater exposure occurs among more workers. The foregoing explains the importance of frequent revisits to the plant in order to prevent outbreaks of dermatitis.

The industrial physician should be well versed in all of the dermatitis-producing potentialities of the chemicals with which the worker comes in contact in the plant under his supervision. The constant introduction of new chemicals with which he is not familiar often makes this difficult. When such unknown chemicals are introduced, there should be a practical plan available by which the dermatitis-producing potentialities of the new chemical can be studied.

It is of paramount importance that the physician becomes habituated to think of his industrial chemicals as belonging to one of two classes. They are either primary irritants or sensitizers. Primary irritants may also be sensitizers.

A primary irritant has been defined as follows:⁸ "A primary cutaneous irritant is an agent which will cause dermatitis by direct action on the normal skin at the site of contact if it is

permitted to act in sufficient intensity or quantity for a sufficient length of time."

Most of the dermatitis encountered in industry is due to primary irritants. Strong primary irritants such as sulphuric acid or nitric acid and other caustic substances while they cause sporadic cases of dermatitis rarely lead to large outbreaks. This is due to the fact that their dangers are readily recognized both by the workers and the plant management. They cause dermatitis by accident or under unforeseen circumstances which are readily remedied.

It is the dilute primary irritants or those which are contacted intermittently which are slower and more insidious in their action and which are often responsible for the large numbers of cases of dermatitis which can be referred to as epidemics. Before such outbreaks can be prevented and controlled, the mechanism by which they produce pathology must be understood. Two such examples are the cutting oils and the solvents which are worth while discussing because it illustrates how necessary it is to understand the mechanism by which they produce dermatitis to institute a proper program of prevention. We know that cutting oil folliculitis is most frequently found after exposure to the insoluble cutting oils.⁶ These consist essentially of a large percentage of petroleum oil to which is added a small amount of animal and vegetable oil, chlorine compounds, sulphur and an inhibitor to prevent deterioration of the fatty oil. We know also that the cutting oil folliculitis per se is not due to pyogenic bacteria and they do not live in insoluble cutting oils. Once this fact has been learned, we no longer need antiseptics in the cutting oils to prevent this occurrence. In fact, the addition of an antiseptic to a cutting oil increases the dermatitis hazard because an antiseptic itself may irritate or sensitize the skin.

Clinical experimental and histologic studies have shown that the petroleum hydrocarbons after prolonged contact have the property of producing hyperkeratosis of the epidermis which leads to the formation of the comedo.⁶ The sulphur and chlorine compounds in the oil are capable of causing inflammation around the hair follicles. Bacterial infections of these lesions causing boils, etc., are complications rather than original causes and the bacteria come from the surface of the skin or from soiled clothing. Bacteria also gain entrance into the skin through

tiny cuts and skin punctures produced by metal slivers from the use of dirty waste for cleansing purposes.

The soluble cutting oil bases mainly used for making cooling compounds consist of sulphonated mineral and fatty oils 60 to 90 per cent, soap 5 to 30 per cent and volatile contents 0 to 10 per cent. Lately we have learned that some of the soluble cutting oil bases are being chlorinated and are causing dermatitis because of this fact. Inhibitors such as phenolic amines are added to the soluble oils to prevent rancidity of whatever fatty oils they contain.

Soluble cutting oils as a class do not cause dermatitis as frequently as the insoluble oils, but if they contain sufficient amounts of sulfonated mineral oil, they may defat the skin causing a chronic dermatitis, and if they contain large amounts of antiseptics or chlorine they may cause allergic dermatitis.

There are instances when allergic contact dermatitis is caused by both soluble and insoluble cutting oils due to the phenolic amines or other irritants but that is infrequent compared to the other types of dermatitis caused by them. The insoluble cutting oils defat the skin and produce changes such as will be discussed under solvents.

The solvents cause changes on the skin slowly if contact is intermittent.^{2,4} If the mechanism of dermatitis production is not understood the early changes which they cause may be missed and large numbers of workers may be affected.

A solvent dermatitis presents a very typical picture. The solvents tend from their nature to remove the natural fats and oils from the skin. They cause a progressive series of changes in the skin dependent on the duration of exposure or whether the skin is dry or oily to begin with and on the character of the solvent. The solvents include petroleum derivatives, coal tar derivatives, turpentine, alcohols, etc. The hands, wrists, and forearms are usually affected. If the fats and oils are removed faster than they can be replaced by the skin glands, they first lead to a dryness of the skin, the skin markings become accentuated, the dorsum of the hand may become reddened, scaly, and fissures may appear over the joints of the hand and at the base of the nails. As the process continues, the keratin becomes dissolved and vesicles may be found. Proper care in the early stages by inspection of

the hands of the workers exposed to solvents often forestalls outbreaks of solvent dermatitis. It is well to inspect the hands of these workers from time to time in order to find early cases and to see whether the safeguards indicated are properly carried out.

Sensitizers cause only about 20 per cent of all contact dermatitis. The sensitizers can be defined as follows:⁸ "A cutaneous sensitizer is an agent which does not necessarily cause demonstrable cutaneous changes on first contact but may effect such specific changes in the skin that, after five to seven days or more, further contact on the same or other parts of the body will cause dermatitis."

Unlike the primary irritants only those workers would need protection who we know will become sensitized, but it is impossible to foretell this. However, once we know that we are dealing with a strong sensitizer protective measures should be instituted which are as thorough as those dealing with the primary irritants. The concentration of the sensitizers as well as the period of exposure will not only determine the number of cases of sensitization encountered, but the severity of the eruption as well.

It is important to know that not only the concentration of the irritant plays a role in sensitization, but its physical state as well. In order to produce sensitization the irritant must be soluble or it must be brought in intimate contact with the skin. It must "wet" the skin. Thus a condition which produces increased perspiration, such as in the summer, results in more of some sensitizers being dissolved in the skin and thus more cases of dermatitis. Friction is another factor which contributes greatly to sensitization or even primary irritation by bringing about more intimate contact between the living cells of the skin and the irritant. These facts must all be taken into consideration when we plan our program of prevention and control.

Patch Test

What is to be done when a new chemical is introduced as far as gauging its dermatitis-producing potentialities. This chemical may be a primary irritant or a sensitizer or both. A primary irritant can be determined by its action on the skin of laboratory animals. If the chemical is found not to be a primary irritant, the following procedure is suggested to determine whether it is

a sensitizer. It has been called the *Prophetic Patch Test* by Schwartz and Peck, and has been employed by them to prevent dermatitis among our population in the introduction of chemically impregnated clothing such as fabric finishes, cosmetics, et cetera.⁷

The test is carried out on 200 or more individuals in the usual way. Since the chemicals or compounds to be tested are new ones, the subjects tested have had no previous contact with them, and therefore cannot be sensitive at the beginning of the test.

Two series of patch tests are carried out on the same individuals ten to fourteen days apart. The first series of tests would give reactions only with a primary irritant, or with people who have been sensitized by previous contact with the chemical. The second series shows the number sensitized by the first series. Experience has shown that even one positive reaction among the second series may indicate that the test substance is a sensitizer which might lead to outbreaks of dermatitis if allowed to be used by large groups of people.

In actual industrial exposure there certainly would be greater contact for a longer period of time and over greater areas of skin than there would be under conditions of the patch test. Also, other factors such as friction, et cetera, play an important role in bringing about greater and more intimate contact between the industrial irritant and the living cells of the skin.

Now that the first phase of prevention, and an idea as to the method of action of some of the chemicals have been discussed, we will briefly discuss and enumerate the actual preventive measures.

Preplacement Examination

Pre-employment patch testing is not advisable. Workers are not allergic to chemicals with which they have had no previous contact. It is only useful as a diagnostic measure in those workers who give a history of a dermatitis in previous employment where the same chemical contacts are present. Even a positive patch test does not mean that the worker should not be employed. We have learned that "hardening" often occurs if the worker is allowed gradual and supervised contact with the chemical to which he is sensitive. This is important in these days of labor shortage.

Applicants with certain skin eruptions should not be employed where there are marked skin hazards because their normal protective barriers such as a normal intact keratin layer is missing and they are thus more sensitive to the action of both primary irritants and sensitizers.

Applicants with dry skins should not be given employment where they are exposed to solvents since they may readily develop solvent dermatitis. If they are employed, special care must be taken of their skins.

Proper Hygienic Working Environment

If complete prevention of contact between the worker and the irritant were possible, the ideal arrangement to prevent not only industrial dermatitis, but systemic poisoning as well would be present. To do this the manufacturing process would have to be totally enclosed. While this is not possible in most instances general and local ventilating devices can be installed to draw irritant dusts and fumes away from the worker. This phase of prevention is the field of the industrial hygiene engineer. Some writers not familiar with industry have advocated substitution of harmless chemicals for those that cause dermatitis; you who are familiar with industry know how absurd such recommendations are.

The workroom should be kept scrupulously clean. The floors, walls, and ceilings of workrooms in which there are industrial irritants should be cleaned daily. Proper protective devices such as metal aprons on machines and filtering devices to remove slivers in the case of cutting oils, etc., should be installed to avoid as much contact between the workers and the irritants as possible. The machines and tools soiled with industrial irritants should be cleaned daily.

Protective Clothing

Protective clothing properly made and intelligently used by the worker is of great value in the prevention of occupational dermatitis. Emphasis should be placed on the protective clothing which is to safeguard that part of the body particularly exposed and should be designed to protect against the particular chemical encountered.

Closely woven fabrics are imperative where there is an exposure to irritant dusts. Not only coveralls constitute protection, but in many cases

the underwear must also be taken into consideration. In many factories the underwear should have long sleeves and extend to the ankles. Where the skin hazard is a problem, the plant should furnish clean protective clothing to the worker. To insure this, they should be laundered by the plant, and issued to him daily. Aprons made of impervious materials should be worn and they should be of the proper length to give adequate protection. When rubber gloves are to be worn, they should be comfortable. Sometimes it may be necessary to have them lined with fabric to absorb perspiration. While natural rubber resists water-soluble irritants, synthetic rubber should be used when there is exposure to alkalis, petroleum distillates or the chlorohydrocarbon solvents. The glove open at the wrists or the gauntlet often increases the dermatitis hazard by allowing ingress of the irritant and thus producing increased exposure. It is imperative that impervious sleeves which fasten over the gloves and extend well above the elbows be used with the rubber gloves to prevent the entrance of irritants. They, too, should be made of impervious resistant material.

Because many workers object to the use of sleeves made of dark heavy materials, maintaining that they are too heating, Schwartz has suggested the use of synthetic resin films such as plicofilm and kero seal. They are impervious to dust, fumes, strong acids, alkalis and petroleum distillates, and are light in weight and because they are transparent give the impression of coolness.*

Especially in dusty operations leather gloves offer good protection and they are more comfortable to wear than the rubber gloves. They can be made of soft, washable leather, goatskin or chamois, and should have smooth seams so as not to irritate the skin.

Cleanliness

Under this heading, we have the most important single preventive measure. Adequate washing facilities should be provided. This includes not only hot and cold running water, but enough time, paid for by the plant, so that thorough washing is possible. There should be enough outlets so that workers do not have to wait beyond the time allowed and paid for. Where

*Such fabrics, now on priorities, will be obtainable after the war.

known industrial irritants are present, the showers should be supervised; the washroom should be so constructed that in order for the worker to replace his work clothes for street clothes he goes first to a set of lockers where he deposits his soiled clothing; goes into the shower and finally goes into another dressing room which contains his street clothes.

The proper type of cleanser must be available. Too often the industrial cleanser furnished for the workers acts as a skin irritant. Those workers exposed to solvents and who have dermatitis or dry skin should use special cleansers such as have been described by Schwartz.⁵ These have been so formulated that the soil is quickly removed with the least amount of rubbing; are practically neutral and do not contain soap which may further injure the skin and they remove the least possible amount of the natural oils and fats from the skin.

Dermatitis can be prevented to a great extent if the irritants are quickly and thoroughly removed from the skin. In some instances where there is a great deal of exposure, the use of Bradley-type basins strategically placed in the shop where the worker can wash frequently enough without loss of much time may be necessary.

Protective Ointments

It has been repeatedly emphasized that protective ointments are not equal as protectives to protective clothing. However, the work must often be performed without gloves; moreover, workers prefer the protective ointments to other protective measures and may even refuse to use other measures. Often it is desirable to protect the face which cannot be safeguarded by protective clothing.

It should be emphasized that no single ointment can be made which gives protection against all irritants. Protective ointments of various types have been described.^{1,5} The important thing to bear in mind is (1) know the irritant against which you wish to protect the worker and the mechanism by which the irritant produces dermatitis, (2) prescribe that ointment which is suitable, after a thorough investigation of the ointments on the market and their composition.

For example, to protect against a water-soluble irritant, the protective ointment itself must not be water soluble; to protect against a water-

insoluble irritant, a protective ointment whose materials are soluble in water is desirable. When the mechanism of dermatitis production by the solvents is understood, we realize that to protect the worker against their action the oils and fats of the skin which are removed must be replaced. To do this, animal and vegetable oils contained in ointments are the best. In order that the workers properly use such an ointment, it should be made available to them on the production line, in a proper dispenser so that it can be used frequently and at the same time avoid contamination with the solvent as is so often seen where open jars are used. By means of lectures and pamphlets, the hazards of his job should be explained to the worker. He should be instructed in the various methods of protection. If for some reason it is not possible for the worker to be furnished with clean clothes and proper protective clothing by the plant then he should be instructed to do the next best thing and purchase them himself. The worker should be told why it is not possible for the plant management to put in the proper ventilation equipment or new showers, et cetera, because of the present difficulty of obtaining equipment. This is important in order to avoid a spirit of resentment in the worker which may not be justified and makes him less coöperative.

For many years, epidermophytosis has been the boogey man of the industrial physician. A great deal of emphasis has been placed on the role of epidermophytosis not only as a disabling dermatitis of its own in industry, but on the role that it might play as a predisposing factor in inducing hypersensitivity to industrial allergens. As you will recall, it was stated that dermatitis which is of the allergic contact type is much less frequent than that due to primary irritants, and in the group of allergic contact dermatitis itself, experience has shown that it has not been proven that the presence of an epidermophytosis has been responsible in a great measure for its occurrence.

Epidermophytosis among the industrial population is no greater than it is among the local population where the particular plant is situated, and it is still a debatable point whether fungus infections can be easily acquired from shower room floors. We are preparing a report on our studies concerning this question.³ It can definitely be stated that fungus infections as a whole

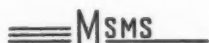
have not proven to be an important factor in causing lost time in industry. The fact that a worker has acquired a specific sensitivity to fungi does not mean that he is predisposed to sensitization to other allergens. However, the presence of open lesions in the skin no matter what the cause, removes a natural barrier and thus brings about more intimate contact between the living cells and the irritant and thus predisposes to dermatitis. Naturally, the presence of an epidermophytosis or an epidermophytid with active lesions such as vesicles, et cetera, serves as a portal of entry for industrial irritants.

Our studies have shown that epidermophytids on the hands of workers are of rare occurrence but it is only with epidermophytids of the hands that allergic contact dermatitis is likely to be confused. The present status of the problem being what it is, workers who must take showers should be protected against the possible acquisition of an epidermophytosis. The following prophylactic measures are recommended. To avoid contact between the worker and the shower room flooring, the best safeguard is to have him wear wooden-soled slippers which he uses in going to and from the showers. In addition, the shower room floors can be scrubbed frequently with antiseptic. As to foot baths which are so popular, it has been proven that the average worker does not stay in the foot bath a sufficient length of time for the solution therein to be more than theoretically effective. For this reason it is worth while to teach him prophylaxis. One of the most important steps which he can carry out is to make sure that he thoroughly dries between the toes. In addition, he can be given an antiseptic foot powder. Actual experiments have shown that an antiseptic foot powder is much more efficacious than just a drying foot powder which has no antiseptic value. He should be instructed to report to the first aid room if active lesions with vesicles, et cetera, appear.

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Criteria for Employability of Individuals with Lung Pathology

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■ IN the days of peace, industrial physicians were fairly rigid in their conceptions, as to physical and mental standards of acceptability for employment. Then the landslide hit us and we began to find that there were a lot more employable members of society than we had previously admitted. We have learned our lesson so well that we are beginning to ask each other, "Who isn't employable?" Or to put it a little more dramatically, one of my colleagues says that his pre-employment examination now consists in the visual determination that there is no faint suspicion of rigor mortis present! We physicians have been taught a lot by the war. The main text is that there are usually jobs which can be filled by those with physical, or with some mental, disabilities. What's necessary is an expert knowledge of each job requirement, a little imagination and a little patience on the part of the examining physician. He must know intimately the burden which the job applicant can safely bear, and the burden which the intended job will impose. If these burdens can be matched equally, the physician has accomplished his purpose.

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When we apply this concept to job applicants or working personnel suffering lung pathology we find that half of the task is easy and the other half extremely difficult. We can quickly determine the burden placed on these individuals by the physical requirements and environment of their job. Job analysis can reveal whether the work is ambulatory or sedentary, arduous or light. Dust counts, temperature and humidity readings, and gas analyses can inform us of the atmospheric safety. Thus, within a short time and with relative ease we can discover the exertion any job will require from any worker.

Our real stint begins when we try to gauge the size of the burden that lung pathology has placed upon the applicant or upon the worker. Here we must use the keenest clinical judgment of which we are capable, aided by whatever laboratory procedures can avail toward our decision. For we are deciding not only *whether* a person shall work, we are also deciding *where* he shall work.

Two guiding principles always influence our thoughts in the placement of pulmonary disabilities. First, is the lung process infectious? Can the affected individual harm others or aggravate his own disease at work? Second, has the process interfered with oxygenation of the body? To illustrate—one cannot allow a tuberculous person with positive sputum to continue work no matter how small his lesion—he constitutes a danger to others and to himself. Nor can a miner with a far advanced anthraco-silicosis continue his occupation. His dyspnea is too urgent, which is merely another way of saying that there is insufficient uninvolved lung tissue available to deliver an adequate oxygen supply to his working muscles.

Pulmonary disease fills several textbooks. It would be boring and unprofitable to survey with you all the ills human lungs fall heir to, then try to match a job to each disease. Rather, we will survey together the more common ailments that you and I are daily meeting in our work, with a view toward finding a rational method of handling the problems they present.

The pulmonary disease most often requiring a decision is nonindustrial. It is subacute bronchitis. When we apply our criteria to it we find that it contains both elements—first, it is infectious; it can be transmitted to others. Second, if

the coughing paroxysms are frequent enough, they certainly impede proper oxygenation. But there is another factor in the cough of subacute bronchitis. It is notoriously worse at night, so that even though the patient has relative comfort during the day, his nocturnal rest may be so disturbed as to make him a weary, careless or dangerous employe while at work.

How soon should we employ the worker recovering from an acute bronchitis? In order to be placed at work:

1. He must have a normal temperature;
2. He must be subject to not more than two coughing paroxysms nightly, and finally,
3. He must be placed in a working atmosphere where dust and fumes are either at a minimum or absent. He will not suffer from moderately hot atmospheres or relatively high humidity. In fact, such a physical environment may actually do him good.

While our minds are engaged with infectious respiratory diseases, a few thoughts on pneumonia will be apropos. Pneumonia, of course, poses no question of working during the disease. It also is the ideal illustration of a disease that is both highly infectious and seriously affects the oxygen supply to the body. Before 1935 no industrial physician in his right mind would allow a person to return to light sedentary work earlier than four weeks from the onset of pneumonia, and often it was six weeks to two months before full work could be resumed. Since the advent of the sulfonamide drugs, not infrequently the worker presents himself for work at the end of two weeks. He bears a note from his attending physician that he is completely well and able to resume work. Examination by the physician in industry only serves to corroborate the truth of these statements. He is put to work and even with careful check no ill effects can be noted. Our notions concerning the length of convalescence from pneumonia have necessarily undergone a sharp revision so that now no rule of thumb can be used. Each returning patient must be studied with a view to reestablishing standard practices from a sufficiently large series. There is no more strenuous work than is required in training for the armed services, so that we may hope to use the pneumonia experience in training camp hospitals as a guide.

Currently there is a hot controversy over the possible predisposition of workers in certain

trades to acquire pneumonia as an occupational disease. The question notably appears in industries where there is an exposure to silica dust. One gains the impression from the literature that the battle so far is a draw, for there is equally good clinical material to prove the case for either side. It is always dangerous to deduce human analogies from animal experiments; yet there is one report of dusting the lungs of rats that seems significant. Baetjer and Vintinner of Johns Hopkins have now a paper in publication on "The Effect of Silica and Feldspar Dusts on Susceptibility to Lobar Pneumonia." Their work may be summarized as follows:

The lungs of rats were dusted with silica and feldspar for periods varying from one to 157 days before inoculation, each day representing eight hours of dusting. The rats were then inoculated intratracheally with a suspension of pneumococcus Type I in gastric mucin or with a broth culture of the same type of pneumococcus. The animals were then autopsied, either after natural death or after a certain predetermined experimental period. An equal control group was set up without the dusting.

It was found that:

1. It was far easier to induce lobar pneumonia in rats with a small number of pneumococci suspended in gastric mucin than if the pneumococci were suspended in broth.

2. The controls in both groups showed a much higher incidence of lobar pneumonia than the dusted animals, from which it was logical to conclude that the inhalation of silica and feldspar dusts actually protected the lungs of these animals from lobar pneumonia.

The authors wisely conclude, "What analogy there may be between this and human lobar pneumonia can only be deduced."

At present, because of draft requirements, most industrial physicians are being forcefully presented with many of the problems of geriatrics. Certainly our civilian male population available for work is embraced in the group aged 45 years or more. One of the commonest, least frequently mentioned, diseases of advancing age is pulmonary emphysema. It has no infectious quality but it is one of the most potent forces known in cutting down the proper supply of oxygen to the body tissues. In fact, one of the most fascinating medical studies I ever made

was on a patient in my intern days who had an erythrocytosis based entirely on pronounced emphysema. But from the industrial point of view, my friend Cosimo is an excellent illustration of the handicap this disease may impose upon a worker. Cosimo was born in Italy seventy-eight years ago and today works his full shift. He has worked sixty-five years in tobacco. His duties are all on the same level, for if he climbed a flight of steps he would be forced to sit on the top one to regain his breath. He lifts nothing heavier than a hand of tobacco; yet because of his long experience he is exceedingly valuable in the processing of tobacco. His chest is barrel-shaped and he has the dorso-cervical kyphosis characteristic of advanced emphysema. He stands most of the day at his job despite a complete right inguinal hernia, but there is a chair handy which he uses as he desires. Cosimo is the marvel of our workers because of his unfailing daily appearance at work despite his advanced age. He and I both know the secret. He has adjusted himself perfectly to his emphysema and does not overtax his strength in extraneous effort. One could wish that every handicapped person might quickly learn such common sense!

From the employment standpoint, pulmonary tuberculosis can be divided into two types—industrial and nonindustrial. Basically there is only one cause for the disease, the tubercle bacillus. But industrially we must pay attention to the individual who has acquired this infection because he has underlying pathology that has been induced by work. In all fairness we must then admit he was predisposed to his tuberculosis by his work. The greatest single industrial precursor of pulmonary tuberculosis is silicosis. Sufficient has now been written on the relationship between these two diseases to leave no doubt that the one often precedes the other. The tuberculo-silicotic group is the only one that has set pulmonary tuberculosis off as a definite occupational disease in the compensation practice of many states in the Union.

The great problem of tuberculosis is its inherent power to cause sickness absenteeism or death among the working population. It is an infectious disease. It can involve large areas of lung tissue before its victim is aware of trouble, and in this latent period he may infect others. Therefore, the industrial physician must approach the examination of every worker's lungs

with his index of suspicion registering 100 per cent. Only after the physician has proved that there are no symptoms, there are no clinical signs, and the chest x-ray is negative, can he honestly diagnose freedom from tuberculosis. In average urban populations the tuberculosis incidence runs constantly 290 to 300 per 10,000. This figure includes both active and arrested cases. It warns us that three out of every 100 people come for employment bringing their pulmonary tuberculosis with them, and it is up to us to devise techniques so that their tuberculosis may be properly evaluated and as many as possible allowed to work. Because the ninety-seven are not infected we must not be lulled into a statistical smugness which makes us slovenly in the discovery of the affected three. In my own medical department at Bayuk Cigars Incorporated we have slowly devised a satisfactory system for the discovery and management of unsuspected pulmonary afflictions. At the pre-employment examination, after a routine clinical physical examination, we fluoroscope the lungs of every applicant. The results have been so informative, and reveal so much that the stethoscope failed to divulge, that I believe the stethoscope is now an obsolete instrument for the diagnosis of tuberculosis when we wish to find it, i.e., when the patient is apparently well. If, fluoroscopically, the job applicant's lungs show shadows that require further study, he is immediately referred to the Henry Phipps Institute for the Study of Tuberculosis, where 14- by 17-inch radiographs are made. If those radiographs show arrested lesions, the applicant is given a suitable job—but we try to follow him fluoroscopically every six months to keep his process under control. The same technique is followed in our periodic health examinations, except that in this instance the company pays for the extra examination. Thus we have built up a group of employees who are kept under observation constantly, yet are proving to be valuable workers. We will not allow anyone with the diagnosis of adult tuberculosis to be placed in a job requiring heavy lifting or inordinately long hours; otherwise they are on an employment par with all our other employees.

The pneumokonioses have been neglected thus far in this paper for two reasons. First, only 1,000,000 of America's 60,000,000 workers are ever exposed, and, of that million, not more than

400,000 at most are ever exposed to a significant dust concentration. Second, because *disability* due to these diseases is compensable in money, they have assumed an importance which they do not deserve if measured on the basis of total man-days lost to the nation. We are in a period of great doubt concerning employment practices when dealing with silicotics or anthracosis-silicotics. The question of *the degree of disability* is now mainly answered on the basis of what the worker thinks he can do without dyspnea, or on what the medical man observes he can do without dyspnea. We are still waiting for a simple test which will inform us reliably with the answer to that question. All of us have seen radiographs of lungs almost completely silicotic; yet the worker continues at his employment without much pulmonary embarrassment. *Per contra*, we have seen silicotics completely prostrated by only a small fibrotic dispersion in the lungs. Certainly, no industrial medical decision requires more individualization at present than determining the disability of a silicotic person.

Finally, no one can long practice routine roentgen examination of workers' lungs without developing a group of problem children. The list will include sarcoid, cysts, local atelectases, spontaneous or therapeutic pneumothoraces, neoplasms, abscesses, and on rare occasions a lues of the lung. In each instance they can only be dealt with individually from the employment standpoint.

Summary

In summary, I should like to stress several points as the gist of what I have tried to convey to you.

1. X-ray of the lung should be used routinely in addition to the usual clinical and other laboratory examinations in evaluating the proper job for an applicant or worker.

2. If pulmonary pathology be discovered, the physician must balance the burden of the job against the burden of the pathology. This can only be done if he knows intimately the job requirements and if he can satisfy himself that the pathology is not infectious nor capable of too seriously interfering with proper oxygenation of the worker's body tissues.

Reconditioning Problems for Disabled Veterans

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and

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■ THE present war has provided industry with experience in the rehabilitation of handicapped workers before the first handicapped veteran returned to work. In order to replace the millions of physically qualified men who have gone into service, some people have, in the past two years, been forced to look to the previously untapped reservoirs of handicapped and substandard workers. Large numbers of blind, one-armed and one-legged individuals have been hired. Even larger numbers with cardiac or pulmonary impairments, emotional and personality defects have been employed. Many have been handicapped not only physically, but also by lack of skill.

From the experience thus gained, some have developed programs for the systematic and selective placement of handicapped workers. In a sense, the handicapped civilian has shown the way for the employment of the handicapped veteran.

Since Pearl Harbor, the military has discharged almost fifty thousand men in Michigan alone. Most of those discharged have not been overseas but have been disqualified while still in training. The great majority of battle casualties, the severely disabled, the severely ill, and the major psychiatric cases are still in hospitals. Few amputations have been released; the others are being taught new trades in government hospitals.

Most of the returned soldiers have been placed at work with little difficulty. The handicaps which have unsuited them for the army have

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been relatively minor: over-age, "couldn't eat army food," "couldn't march," "dizzy spells," "heart pounding," "nervousness," et cetera. Some feel stigmatized, others overcompensate by parading a manufactured heroism. Some have presented major job-placement problems.

The problem of re-integrating and reconditioning handicapped servicemen in industry is logically of two parts. The first concerns their proper functional placement as to job and environment; the second, the physio- and the psychotherapy necessary, subsequent to employment, to solidly adjust the handicapped to peacetime vocations. For expediency, I will refer to these phases of the program as preplacement and postplacement reconditioning.

Preplacement

Considering the first of these parts, proper functional placement, it is apparent that selective preplacement examinations must be designed to install handicapped individuals on jobs which are physically, as well as mentally, within their functional capacity.

Essentially programs for this purpose require each returning serviceman be cordially but not effusively welcomed upon his return to work by a qualified individual exclusively assigned to this duty. In many cases this individual may be the plant personnel manager himself. Here his employment requests should be received, his skill evaluated, and special factors apart from his health discussed. Following this initial contact the applicant may be sent to the medical department for examination.

The medical department might classify each individual, depending upon his examination results, into one of three general classifications: (1) **PQ**, physically qualified for any job, (2) **NPQ**, not physically qualified for any job, (3) **PQX**, physically qualified for jobs not harmful to the individual's disabilities.

For the purpose of conducting such a physical examination program, the medical department may set up physical examination standards to conform with these three classifications.

For individuals classified in the third group, the **PQX**, or conditionally qualified applicants, a code might be established which defines the individual's disabilities in functional terms. One code developed for this purpose is comprised of two parts—code letters which define broadly the

individual's capacity to do heavy, moderately heavy, light, or very light labor; and a series of modification code numbers for the interpretation of specific disabilities (Table I).

An important feature of a coding procedure is that no specific medical diagnosis need be communicated to anyone beyond the medical department. The medical record can be maintained in a confidential medical department file. No information, apart from classification symbols and code numerals, need be transmitted to any other person or agency.

Under such a plan, the physician is not informed as to what type of job the applicant is scheduled to do. He is not examining the man for one particular job but for a group of jobs which that man might fill. It is not necessary for the physician to match each individual machine against all the diseases in Medicine and then decide that Machine Number One Thousand can take a TB, a nephritic, or a cataract, but not an ankylosed wrist or a poker spine. The common denominator in deciding what job the applicant can handle is Functional Capacity.

Under such a procedure the plant physician may determine the absence of or the limitation of the capacity of an individual for standing, sitting, walking, climbing, lifting, stooping, and so forth, and not specifically whether he can drive a jitney, or lift an axle, or lower a ton of steel from a crane into a bin fifty feet below. In other words, the physician can simply describe the functional periphery of the applicant.

When the applicant is returned to the personnel department in company with his functional code classification, the latter agency may proceed to place him in accordance with his skill and desires, subject to the limitations of his coding and job availability.

The matching process may be expedited by job surveys which define each job within a plant in terms of specific physical requirements and the functional capacity required in its performance. Here again the disability code may be utilized. The job survey can be expressed in the same symbols as are used for the physical examination coding, but with opposite meaning. Thus, when the applicant's coding is compared with the codings of jobs available, the presence of a letter or number in the job code which also appears in the physical examination code may disqualify the applicant from that particular job.

RECONDITIONING PROBLEMS—JOCZ

TABLE I. PQX—PLACEMENT CODE

A. Heavy sustained labor.	B. Moderately heavy labor.	C. Light labor.	D. Very light labor.
Modification			
1. New hire (except service personnel) is NPQ	2. Hernia statement advised.		
General Functions			
10. No standing.	80. No hearing.		
11. Standing less than 50% of the time.	81. Some but not good hearing.		
12. Standing more than 50% but not all of the time.	Specific Functions		
	90. No use of right hand or arm.		
	91. Partial use of right hand or arm.		
20. No sitting.	100. No use of left hand or arm.		
21. Sitting less than 50% of the time.	101. Partial use of left hand or arm.		
22. Sitting more than 50% but not all of the time.			
30. No walking.	110. No use of right foot or leg.		
31. Walking less than 50% of the time.	111. Partial use of right foot or leg.		
32. Walking more than 50% but not all of the time.			
40. No climbing.	120. No use of left foot or leg.		
41. Climbing less than 50% of the time.	121. Partial use of left foot or leg.		
42. Climbing more than 50% but not all of the time.			
50. No lifting or carrying.	130. Physical reactions not prompt.		
51. Moderate or less than moderate lifting or carrying.	135. No speech.		
52. No pushing or pulling.	Environment		
53. Moderate or less than moderate pushing or pulling.	140. No danger from dizziness, fainting, or convulsions.		
60. No stooping.	141. Nervous disorder (specify environmental limitations).		
61. Stooping less than 50% of the time.	150. No exposure to dusts, smokes, fumes, vapors, gases, and mists.		
62. Stooping more than 50% but not all of the time.	151. No exposure to excessive noise.		
	152. No exposure to excessive heat.		
	153. No exposure to excessive cold.		
Special Senses			
70. No near vision.	160. No exposure to any skin irritants (particularly no wet jobs).		
71. Some but not good near vision.	161. No exposure to specific skin irritants (specify).		
73. Some but not good distance vision.	170. Certain shift recommended (specify).		
74. No binocular vision.			
75. Some but not good binocular vision.			
76. No color perception.			
77. Has vision in one eye only.			

Such a procedure of coding both jobs and applicants can simplify the placing of disabled individuals into an almost automatic matching operation.

The "not physically qualified" classification previously mentioned can be reduced to minimum proportions. Its purpose should be to provide a floor or screen which will bar from employment only those individuals with actively communicable and contagious diseases or disabilities of such extreme degree that they can perform no function, or who are so severely disabled as to jeopardize their own life and those of their fellow workers in even the safest work environments.

Once a selected placement has been made, it must be followed. This responsibility, in the usual industrial organization, falls to the safety division. This agency should be provided with a copy of the applicant's code classification and periodically should check the job and the individual to see that his coding is in no way violated and that no undue difficulty is experienced. No job transfers should be permitted without

the certification by the safety division that the new job does not violate the employee's code classification.

In addition to his safety follow-up, medical departments may request, and in some cases routinely request, that disabled employees report periodically to the medical department for a review of progress.

Postplacement

The second part of an industrial reconditioning program—the postplacement program—should begin where the first part stops.

Even with a selective placement program there is a compelling necessity to further minimize worker disabilities. The reasons for such action touch upon many facets of the general problem of reconditioning and would be too numerous to include here. Significant among them, however, are the necessity for improving morale by widening the field of personal opportunity, improving efficiency, and removing, as much as possible, the awareness of disability.

The proportion of cases to be handled under

RECONDITIONING PROBLEMS—JOCZ

a postplacement program will, of necessity, be only a fraction of the disabled group who are returned to work. By definition, however, they will involve the more difficult problems of re-

or require hospitalization, together with those requiring more extended treatment, might be referred back to government medical agencies.

As previously indicated, the mental and emo-

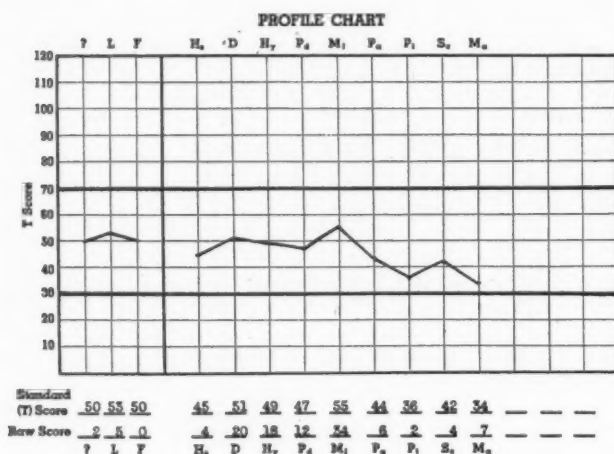


Fig. 1.

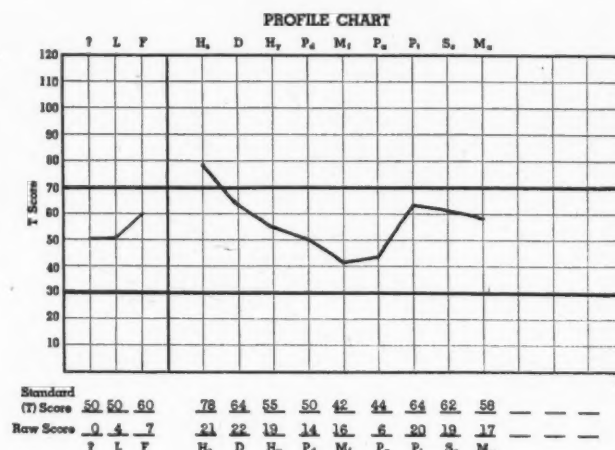


Fig. 2.

conditioning. It is expected that in many cases the problem will be a complex of variables involving both physiotherapy and psychotherapy.

For the most part, it may be assumed that the more serious cases, both mental and physical, will have achieved a great part of their recovery in government institutions. But there will be many of these cases which will be recurrent in nature and which will require intermittent and continuing treatment.

It is not possible nor feasible to outline a rigid program of postplacement reconditioning. Some of the disabled servicemen who enter industry will require periodic treatment which can best be handled by visits to government medical agencies. Some will require treatment from both industry and governmental agencies. Some can be handled by industry alone.

It would seem that the best postplacement reconditioning program might be that which provides for both governmental and industrial medical participation. Thus, for example, some industries might well find it necessary and profitable to extend their physiotherapy facilities to include the more complex procedures in hydrotherapy, massage, exercise, and so forth. Similarly with psychotherapy, to provide for personality analyses and correction, on at least a minimum scale. Cases which become nonambulatory

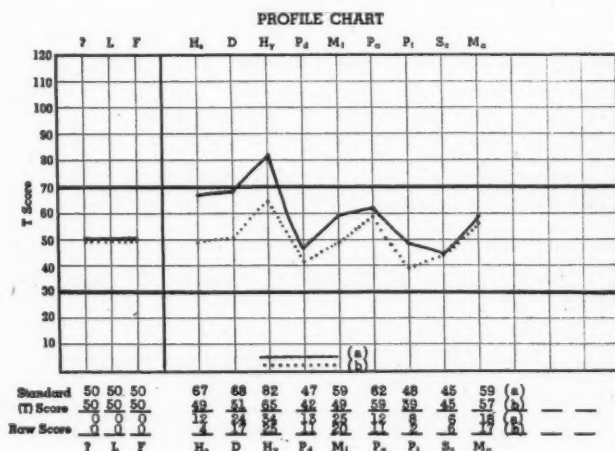


Fig. 3.

tional problems in rehabilitation are most vital. If once having satisfactorily adapted physical handicaps to a work environment, there yet remains the problem of mental compatibility. The appraisal of significant mental handicaps, especially those well hidden beneath the surface, is extremely difficult for physicians with no training in psychiatry. A test has been devised which is designed to rapidly and systematically detect abnormal personality traits and indicates whether the subject should have further evaluation by a trained psychiatrist.

The test is called the Minnesota Multiphasic Personality Inventory. It was developed by Dr. Starke R. Hathaway and Dr. J. Charnley McKinley* of the University of Minnesota Medical

*J. C. McKinley and S. R. Hathaway: The identification and measurement of the psychoneuroses in medical practice: The Minnesota multiphasic personality inventory. J.A.M.A., 122: 161-167, 1943.

School. It is the result of five years of study by the authors.

The test consists of 550 statements, each printed on a separate card, and is self-administered. The statements refer to the subject's general body health, his habits, his occupational, religious, social, and sexual attitudes; his family and marital relationships, his moods, morale, phobias, obsessions, compulsions, delusions, hallucinations, and so forth. The subject is given the cards and asked to sort them into three groups—True, False, and Cannot Say. Answers usually given by normal people are not used. Only the significant answers are recorded on a record blank. Transparent templates are used for obtaining the various scores. These scores are plotted on a graph and a curve or "profile" obtained. The work can be done by a clerk, but the "profile" is interpreted by a physician.

Scores between 30 and 70 are interpreted as being within "normal" limits, although scores between 60 and 70 are given "borderline" significance. Scores above 70 are considered abnormal and indicate the need for further clinical psychiatric appraisal. In our estimation such a test should not take the place of a personal interview by a psychiatrist but may be a valuable aid in detecting those people in need of such interviews. The test, at present, shows the strengths of the following personality traits in the individual: hypochondriasis (Hs); depression (D); hysteria (Hy); psychopathic personality (Pd); masculinity-femininity interests (Mf); paranoia (Pa); psychasthenia (Pt); schizophrenia (Sc); and hypomania (Ma).

Lack of space does not permit the illustration of profiles showing each of these personality traits singly and in combination. A detailed study of the usefulness of this test as a filter will be presented at a later date. For purposes of brief illustration, Figure 1 represents a "normal" profile; Figure 2 represents a profile significant of hypochondriasis, and Figure 3 a profile significant of hysteria. In Figure 3, the solid line was obtained when the subject was incapacitated from work by conversion hysteria, while the broken line was obtained after four weeks' rest with marked clinical improvement.

In conclusion, we should like to leave this thought: That the problem of reconditioning in its broadest aspect is, after all, of enormous scope and will not be solved unless all concerned are equipped and prepared to meet it.

Ocular Pathology Due to Organic Compounds

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■ THE chemical industry is more and more concerned with the protection of its employees in the hazardous occupations in its own plants where useful chemicals are produced; secondly, with the safeguarding of those workers in other industries who use these chemicals to achieve their products; and thirdly, providing the individual in his home with information to enable him to ultimately use all these products. This latter case is emphasized again in the case of naphthalene which is widely employed in industry, agriculture, and the home. Yet, it is in the home that most all of the naphthalene poisonings occur. Think, for a moment, on how really widespread is the use of chemicals as refrigerants, as medicine, dry cleaners, paint solvents, insecticides, fire extinguishers, rubber vulcanization, plating solutions, leather working, plasticizers, degreasers, garden and orchard sprays and dusts, war gases, and so on. The need for the protection against chemical hazards and the urgency for widespread information in the handling of the chemicals is very great.

The occurrence of cataracts, optic atrophy, retrolubar neuritis, and other ocular disturbances has given impetus to our interest in this field of study. The frequency of ocular injuries is about 25 per cent and the cost to industry about 50 per cent of all the injuries coming to first aid. The immensity of this problem requires a physician, a safety engineer, and chemist to prevent and to control chemical injuries. Many protec-

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tive techniques peculiar to the chemical industry are in operation to control toxic materials, gases, dusts, sprays, and vapors; to shield against flying objects and radiant energy; and to provide the worker with adequate and suitable illumination.

Research in biochemistry is a companion protective measure of immeasurable value. Study of the physiological and the pathological changes in experimental animals employing chemically pure organic compounds is creating a storehouse of highly useful information. The knowledge of the physiological behavior of the two great classes of organic compounds, aliphatic and aromatic, is broadened with each new investigation. We wish to turn your attention toward some of the ring-type or aromatic compounds having common bondage by the parent benzene ring.

Some of these organic compounds can do an astonishing amount of damage to the human and to the experimental animal. Benzene produces a well-marked aplastic anemia; closely allied chemical relatives such as toluene have been blamed for similar action, but there is evidence to the contrary. Almost without exception, poisonings of this type are due to benzene itself. B-Naphthylamine has been shown to be the causative agent of many of the so-called "aniline tumors" of the urinary bladder which have been encountered in the dye industry. Dinitrophenol is a metabolic stimulant which was brought to the attention of the medical world in 1933 by Prof. C. Heymans of Ghent who advocated its use for the relief of obesity and of states of hypothyroidism. Clinically, this drug is charged with causing cataracts in one per cent or less of the people who have taken it. In a report by Tainter, Bergstrom, and Cutting from the departments of pharmacology, chemistry, and medicine of Stanford University a review of the activity or lack of activity of dinitrophenol and fifty related compounds was thoroughly covered. In general, their work showed that only the creosols and the dinitrophenols were active metabolically in rats, pigeons, and dogs. In 1939 Berliner published an article in which he described two clinical cases with cataracts which he asserted were due to prolonged exposure to a "deodorant" or "mothproofener" containing para-dichloro-benzene. He also produced cataracts in one rabbit supposedly by the combination of oral feedings of para-dichlorobenzene and exposure

to its vapors. His experimental work consisted of four rabbits kept in specially constructed cages with variable amounts of ventilation and para-dichlorobenzene vapor. No indication is given as to the source or purity of the para-dichlorobenzene used in this experimental work.

We have been interested in the toxicity of para-dichlorobenzene for some years now. Our clinical experience of the effects of this chemical compound in man is considerable in comparison with that of other medical men. Some workmen have had considerable exposure to it in the form of spray. None have ever complained of visual disturbance at any time attributable to this substance. One man afflicted with congenital cataracts was allowed to work in this field and showed no new ocular changes. None of the workmen ever had a papillitis or retrobulbar neuritis.

In our experimental work we desired particularly to have as pure a chemical compound as could be obtained.

PARA-DICHLOROBENZENE

Source: The Dow Chemical Company

Boiling range: 172.5 to 173.6 C.

(from first drop to dry point)

Freezing point: 53.0 C.

Per cent chlorine: 48.27 (theoretical is 48.24)

Specific gravity: 60/60 C.: 1.2632

Several rabbits were given repeated eight-hour exposures to para-dichlorobenzene vapors at a concentration of 4.6 to 4.8 mg./l. or 770 to 800 parts per million. This concentration of para-dichlorobenzene is from five to ten times the concentration that the average man will voluntarily tolerate.

It is evident that repeated exposures to such a concentration of p-dichlorobenzene vapor produced such a marked intoxication that some animals died after a few exposures, while only a few withstood as many as sixty-two repeated eight-hour exposures. All of the exposed animals showed marked tremors and weakness but no actual paralysis. Lateral nystagmus was observed in several of the animals while at least two of them showed transitory edema of the cornea. All of the rabbits showed edema of the optic nerve head which was progressive to a point of three to five diopters in amount. The physiological cup was obliterated and the margins of the nerve heads melted into the neigh-

boring retinal edema. The veins early became congested and their enlargement grew in intensity with the increase in edema of the optic nerve. The arteries were relatively smaller in calibre. Often venous pulsations were quite marked in the retinal veins. No hemorrhages or exudates appeared in any animal eye. Three of these rabbits survived sixty-two eight-hour exposures to the vapor over a period of eighty-three days; two of these three were allowed to recover. Within seventeen days the nerve heads were restored to nearly normal elevation although the margins were sharper and the color of the disc paler. The physiological cup reappeared and, in some rabbits, seemed larger than normal. The vessels regained a normal ratio of size. No disturbance of the retina was visible. The media of all eyes was clear. The animals were free of tremors and began a normal weight gain once more.

The eye changes observed in these rabbits were reversible in nature and were of the type commonly associated with acute intoxications. They cannot be considered as specific for para-dichlorobenzene. In no case were lens changes or deposits in the vitreous observed. We take this opportunity to describe these changes since they are not subject to photographic demonstration. The surviving animals behaved as if there were no disturbance in their vision.

An attempt was made in this experimental work to give rabbits repeated oral doses of para-dichlorobenzene at high enough dosage levels to produce definite intoxication, but still low enough to allow most of the animals to survive for a considerable period of time. Since it has been shown by several investigators that orally administered naphthalene produces cataracts in rabbits, this compound also was fed to a parallel group of rabbits in order to demonstrate that the cataracts could be produced in our strain of rabbits by chemical means. In these experiments we were particularly interested in the lens of the eye and the changes which occur in it as the result of the administration of a pure chemical compound. The lens of the eye among mammals is more alike in behavior and chemical composition than any other tissue of the body. Serologically the lens proteins give organ specific and species indifferent reactions. Furthermore, the eye lends itself to photographic recording of the cataract changes exceedingly well

and is open to daily inspection with the ophthalmoscope and slit-lamp until the lens changes are too dense to see through.

Repeated oral doses of para-dichlorobenzene at the levels of 0.5 and 1.0 g./kg. were administered to the rabbits by means of a stomach tube five days a week. This dosage is equivalent to 35 to 70 grams for an average-sized man.

It was found that repeated doses of 1.0 g./kg. produced marked intoxication, weakness, tremors, loss of weight, and even death. Repeated doses of 0.5 g./kg. were tolerated for long periods of time, even up to one year. However, such quantities of p-dichlorobenzene produced definite tremors and the other signs of intoxication. The eye changes which were observed in the rabbits exposed to high concentrations of p-dichlorobenzene vapor were not found in these rabbits receiving repeated oral doses of p-dichlorobenzene. In none of these rabbits were there any lens changes or deposits in the vitreous, regardless of the size of the oral dose or the amount received by inhaling the vapor.

On the other hand, cataracts were readily produced in the rabbits receiving naphthalene orally.

NAPHTHALENE (resublimed)

Source: Merck Chemical Co.

Boiling range: 215.9-218.4 C. From first drop to dryness. (Theoretical 217.9)

Freezing point: 79.9 C.

Specific gravity: (?)

Melting point: 79.3, meniscus 80.1 C.; fluid 81.4 C. (Theoretical 80.2 C.)

These rabbits were given repeated oral doses of naphthalene at the dosage levels of 0.5 and 1.0 g./kg. which were sufficient to produce loss of weight and definite signs of intoxication. The lens changes appeared quite rapidly in the colored rabbits and somewhat more slowly in the white-haired rabbits. Some of the rabbits were observed for several months after discontinuing the administration of naphthalene in order to follow the changes occurring upon absorption of the cataract.

Three typical growth curves show that sufficient p-dichlorobenzene and naphthalene were being administered in repeated oral doses to produce a definite effect upon the body weight of the rabbit. This effect upon growth was only one of the manifestations of marked intoxication produced by the dosages given. It should

be emphasized that in spite of the repeated oral administration of such quantities of p-dichlorobenzene none of the rabbits receiving the material developed any lens changes whatsoever.

Berliner suggests that disturbances arising from hepatic damage may play a role in the formation of cataract. However, examination of the livers from several of the rabbits that had received repeated doses of either para-dichlorobenzene or of naphthalene for periods as long as one year revealed no pronounced pathological changes. Hepatic damage surely cannot account for the rapid onset of cataract observed in the rabbits receiving naphthalene. Furthermore, cataracts are not associated with intoxications resulting from known hepato-toxic agents such as chloroform, carbon tetrachloride, or phosphorus.

We were unable to produce any lens changes in either rats or guinea pigs by repeated exposures to the vapor of para-dichlorobenzene or by repeated oral doses of either naphthalene or para-dichlorobenzene.

In the course of the experimental work a great many movies were taken of these animals, and particularly of their eyes. These serve as a permanent record of the actual condition of the eye and the changes that occurred during the course of the experiment.

In the case of the rabbits receiving naphthalene the status of the toxic lens changes can be seen from early to late in a most dramatic fashion. In distinct contrast to these spectacular changes produced by naphthalene, no changes were demonstrable in the lenses of the rabbits receiving para-dichlorobenzene for periods as long as one year.

Summary

1. Cataracts were produced in rabbits by the oral administration of naphthalene. The progressive pathological lens changes have been recorded by means of color photography.
2. While repeated exposures of rabbits to very high concentrations (4.6 to 4.8 mg./l.) of para-dichlorobenzene vapor produced definite intoxication, including tremors and toxic eye ground changes, no lens changes were observed.
3. Prolonged oral administration of definitely toxic quantities of para-dichlorobenzene to rabbits did not produce any lens changes whatever.

Conclusion

Our clinical experience, together with the evidence gained from experimental work with animals, has led us to believe that cataracts are not produced by para-dichlorobenzene either by oral ingestion or inhalation of its vapors in either man or rabbit.



Penicillin in Surgery

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■ SOMETIMES men have in their possession a priceless substance that they do not appreciate. Other times men value a substance far beyond its true worth. Penicillin has found itself in both situations. When Fleming discovered it in 1929, he did not realize how important it would become. On the other hand, penicillin does not have the extraordinary powers that some people are inclined to attribute to it.

The information that we have concerning the value of penicillin in certain infections has been gathered in the brief space of a few years. Although penicillin was discovered in 1929,¹ it was not employed clinically until 1941, when a group of English workers¹ reported the results of penicillin therapy in ten patients. Furthermore, until comparatively recently the supply of penicillin was so meager that it was possible to treat only a few patients with it; our experience, therefore, is not large. In spite of this, there is sufficient evidence to justify the conclusion that penicillin is a substance of great value. One has only to witness the recovery of a few moribund

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patients to realize that while at times this drug may fail, it is often capable of performing what a few years ago would have been termed miracles.

Penicillin is important not only because of its own properties but because it heralds a new era in our battle with the pathogenic bacteria. Penicillin is not effective against all bacteria; many pathogenic bacteria are completely immune to it. The success of penicillin, however, has encouraged bacteriologists to search for other substances elaborated by microorganisms, other antibiotics that are nontoxic for men and yet effective against the pathogenic bacteria that penicillin does not harm. Already many compounds have been isolated and tested. Some appear promising. It is well within the realm of possibility that within the next decade substances will be available that will revolutionize the treatment of bacterial infections.

The history of penicillin is exceedingly interesting. In 1929^{6,7} Fleming noted the unusual appearance of a petri plate culture of *Staphylococcus aureus* that had become contaminated by a mold. The colonies of staphylococci near the mold "appeared to be fading away." Instead of throwing away the contaminated culture, he puzzled over the failure of the staphylococci to grow near the mold. This questioning led to a series of experiments in which he showed that the mold liberated a substance highly toxic for certain bacteria and completely innocuous for others. Fleming demonstrated that the mold could be grown in broth; that the filtrate contained the active substance; and that the substance was nontoxic for animals. He suggested that it might be used for injection into areas or application on areas infected with penicillin-sensitive microbes. He also tried it on a few superficial skin infections in man, but he gives very little information about this.

In 1932, Clutterbuck, Lovell, and Raistrick³ attempted to identify the substance chemically. From this time until 1939, very little was done with penicillin. Sporadic reports of work appeared, but nothing of note was accomplished until Florey, in 1939, organized a team of research workers at Oxford to investigate penicillin systematically. In 1940² Florey *et al* reported some very promising animal protective experiments, and in 1941¹ they were able to employ penicillin in the treatment of ten patients. These papers

stimulated interest in this country, and in the fall of 1941 arrangements were made for the production of penicillin in the United States. Since this time progress has been rapid, both in the production and purification of penicillin and in its employment for the treatment of infections.

The exact chemical structure of penicillin is not known. It is certain that it is not a protein. It is an acid, however, and is usually prepared in the form of its salts. Inasmuch as its chemical structure is not known, the drug must be standardized biologically—in terms of its power to prevent the growth of bacteria. The unit in common use is the Oxford unit. By definition an Oxford unit is that amount of penicillin which, when dissolved in 50 c.c. of meat extract broth, will just suffice to inhibit completely the growth of a test strain of *Staphylococcus aureus*. It is an exceedingly powerful antibacterial substance. Cook⁴ in 1942 reported the preparation of a product with an activity of 750 Oxford units per milligram. Florey⁶ has reported the preparation of penicillin that will prevent the growth of staphylococci and streptococci at dilutions between 1:50,000,000 and 1:100,000,000 and will produce morphological changes at dilutions of 1:256,000,000.

It is important to realize that penicillin is effective only against certain organisms. This was emphasized by Fleming in his original papers^{7,8} and again by Hobby, Meyer, and Chaffee.⁹ The latter authors tested many organisms in vitro against penicillin. They found that the susceptible group includes: *pneumococcus*, *Streptococcus hemolyticus*, *Staphylococcus albus* (some strains), *Staphylococcus aureus*, *meningococcus*, *Streptococcus viridans*, *B. subtilis*, *Cl. welchii*, *V. septique*, *Cl. histolyticum*, *B. sporogenes*, *B. oedematiens*, *B. sordelli*, *Lactobacillus*, *Cryptococcus hominis*. The unsusceptible group includes: *H. influenzae*, *E. coli*, *B. typhosum*, *B. dysenteriae*, *B. proteus*, *B. paratyphosum*, *B. enteritidis*, *B. pyocyaneus*, *B. fluorescens*, *B. prodigiosus*, *Friedländer's bacillus*, *Staphylococcus albus* (some strains), *Monilia albicans*, *Monilia krusei*, *Monilia candida*. It is apparent that there are many surgical infections that penicillin cannot be expected to benefit, since the causative organisms are not susceptible to its action.

Penicillin acts mainly by bacteriostasis; however, under certain circumstances it will kill bacteria. This action is not immediate but requires

several hours. Unlike the sulfonamides, the action of penicillin is not hindered by pus, tissue autolysates, or para-amino-benzoic acid. In fact, penicillin is effective when injected into an abscess. Also in contrast to the sulfonamides, penicillin is effective against large numbers of bacteria.

The toxicity of penicillin for man is not definitely known. The following reactions have been encountered in cases treated with penicillin:^{10,11}

1. Chills with or without fever after intravenous injection
2. Eosinophilia of 20 to 30 per cent
3. Burning pain at site of intramuscular injection
4. Headache
5. Faintness and flushing of the face
6. Unpleasant taste after parenteral injection
7. Tingling in the testes
8. Muscular cramps
9. Femoral phlebothrombosis

Most of these reactions occurred during the developmental period of penicillin therapy and were attributed to impurities. With improvement in the purity of the product, toxic episodes have steadily decreased. Those which still occur are:

1. Urticaria with or without fever occasionally associated with abdominal cramps and pain in the joints
2. Fever during first five days of therapy
3. Transient azotemia
4. Thrombophlebitis at site of intravenous injection

None of these manifestations is severe enough to require cessation of therapy.

Penicillin is supplied at present in the form of its sodium or calcium salt. These come in sealed ampules which must be stored at or below 5° C. There is some question about the necessity for keeping this material cold, but until this has been settled, refrigeration is the safer course. The salts are extremely soluble and can be dissolved in distilled water, isotonic saline, or 5 per cent glucose solution. Once in solution, they tend to deteriorate and must be kept cold and must be used within 24-48 hours. The sodium and calcium salts of penicillin are so soluble that one can make almost any desired concentration per c.c.

The theoretical object of treatment is to maintain a *sufficient* concentration of penicillin *constantly* in contact with the infecting bacteria so

as to inhibit completely the growth of the bacteria. There is, however, some evidence to show that this may not be necessary.^{12,15} Patients seem to recover from infections in spite of the fact that the concentration of penicillin in the blood has never been sufficient to inhibit completely the growth of the organisms or has been only intermittently sufficient. Penicillin should be present in all the body fluids to combat such generalized infections as staphylococcal infection with bacteremia in which there may be not only invasion of the blood stream but also multiple scattered abscesses. In local infections, such as empyema, a high concentration of the drug must be present in and about the abscess.

In order to effect the optimum concentration of penicillin for a given infection, one must know three things: (1) the concentration of penicillin required to inhibit the growth of the offending organism, (2) the routes by which the drug may be administered, and (3) the amount of penicillin required to achieve and maintain the desired concentration according to the route of administration that has been selected. The required concentration can be determined by testing the organisms in vitro against different concentrations of penicillin. In general, it is known that the gonococci and meningococci are the most susceptible of the affected organisms. They are followed, in order of increasing resistance, by *pneumococcus*, *Streptococcus hemolyticus* (Group A), *Staphylococcus aureus*, *Streptococcus viridans*, *Staphylococcus albus*, and the Gram-positive rods.^{5,7} Rammelkamp and Keefer,¹² who have tested the resistance of a number of strains of staphylococci and hemolytic streptococci, found that after the intravenous administration of penicillin blood exerted its maximum bactericidal effect against the hemolytic streptococcus when the serum concentration was between 0.019 and 0.156 Oxford units per c.c. For the maximum bacteriostatic effect against the *Staphylococcus aureus*, serum concentrations of 0.156 Oxford units per c.c. were required.

After arriving at some estimate of the concentration required either systemically in cases of generalized infection or locally in cases of localized infection, one must consider the possible routes of administration and the dosage required. These questions are complicated by the lack of a simple method of measuring the concentration of penicillin in body fluids. There is

no chemical test, as there is with the sulfonamides, for determining the amount of penicillin in the blood, and it is necessary to resort to biological tests. The blood concentrations of penicillin in terms of Oxford units can be determined by testing the power of the blood to inhibit a standard strain of hemolytic streptococci.

Penicillin can be administered intravenously, intramuscularly, intrathecally, intrapleurally, intra-articularly, intrapericardially, or intraperitoneally. The hydrochloric acid of the stomach destroys penicillin so that it cannot be given by mouth. Attempts have been made to administer it by duodenal tube or in enteric coated capsules, but the attempts have not been very successful. The Gram-negative organisms are able to destroy penicillin so that rectal administration likewise is not satisfactory.

The intravenous route has received the greatest attention. Penicillin may be given in the form of a continuous intravenous infusion or as intermittent venous injections. A continuous infusion is the better way to administer penicillin because by this method its introduction can keep pace with excretion, and the blood level can be kept fairly constant. Rammelkamp and Keefe¹³ have shown that penicillin disappears rapidly from the blood stream following intravenous injection. In general, about 75 per cent of the injected material leaves the blood stream within 15 minutes and 90 per cent by the end of 30 minutes. The remaining 10 per cent disappears slowly over the course of two or three hours. The rapid disappearance from the blood is associated with rapid excretion of the drug in the urine. In the presence of impaired kidney function penicillin is not excreted so rapidly, and the blood concentration remains high for considerable time. Though most of the penicillin is excreted in the urine, a portion of the injected dose is probably excreted in the bile and the saliva. Some of that excreted in the bile can be reabsorbed; the remainder is destroyed by the intestinal bacteria.

Because of the difficulties involved in intravenous administration, many workers have resorted to intramuscular injection. Penicillin is rapidly absorbed after intramuscular injection so that the blood concentration reaches fairly high levels in 15 to 30 minutes. The high level is then maintained for 15 to 30 minutes, after which it gradually falls until only traces of penicillin

can be detected in the blood after three to four hours. A single intravenous dose of 10,000 to 40,000 Oxford units may be expected to result in a blood concentration between 0.078 and 0.312 Oxford units per c.c. at 30 minutes, 0.019 and 0.078 Oxford units at 60 minutes, and 0.0 and 0.009 Oxford units at two hours. A single intramuscular dose of 10,000 Oxford units may be expected to result in a blood level between 0.078 and 0.015 Oxford units per c.c. at 15 and 30 minutes, 0.039 and 0.078 at 60 minutes, and 0.0 and 0.009 at two hours. A larger dose will give higher levels for a longer period following either intramuscular or intravenous injection.

Penicillin does not penetrate into the spinal fluid of normal individuals¹³ nor into the tears or pancreatic juice.^{1,6} Rammelkamp and Keefe¹⁴ have injected penicillin intrathecally in normal subjects and in those with meningitis. In both instances penicillin was absorbed and excreted in the urine, but the absorption was more rapid in patients with meningitis than in normal persons. A dose of 10,000 units caused some irritation as evidenced by increased cell count, increased cerebrospinal fluid pressure, and headache; traces of penicillin were detected in the cerebrospinal fluid for 31.5 hours. A dose of 5,000 units caused only very mild changes. Penicillin injected in normal patients cannot be recovered from the cerebrospinal fluid in any significant concentration.¹³ It is not known whether penicillin injected into the blood stream will penetrate into the cerebrospinal fluid of patients with meningitis. Until this is determined, penicillin should be injected into the subarachnoid space in patients with meningitis in doses of 5-10,000 units every 24 hours.

Intermittent subcutaneous injections of penicillin are absorbed very slowly, and a satisfactory blood level is not obtained.

Intravenous or intramuscular injections of penicillin do not penetrate into walled-off collections of pus such as may be found in thoracic empyema or in a septic joint. Conversely, penicillin injected directly into such an abscess does not escape rapidly.^{6,14} In such conditions, therefore, penicillin should be injected directly into the abscess once daily. The pus should be aspirated and the drug injected in amounts sufficient to produce a concentration of several Oxford units per c.c. of abscess content.

It will require increasing experience to delineate accurately the optimal dosage of penicillin

for various infections. It is worth emphasizing that to date the supply of penicillin has been so limited that most effort has been directed toward ascertaining the minimum amount that would be effective in a given case. In only a few instances have really large doses been employed. It is not known, therefore, what results might be obtained with massive doses. At present it seems wise to guide therapy by testing the resistance of the organism in question and then administering enough penicillin frequently enough to keep the blood level close to the concentration required to inhibit the growth of the organism *in vitro*. There is some experimental work¹² to indicate that it may not always be necessary to maintain such high levels, but until this has been established, it is safer to overcompensate.

The following dosage schedule has been tentatively advanced by Lyons¹¹ for the treatment of surgical infections:

Susceptible streptococcal infections

15,000 Oxford units intramuscularly every four hours

Staphylococcal infections with bacteremia

25,000 units intravenously initially and

5,000 or 7,500 units intravenously every one-half hour

Staphylococcal infections without bacteremia

25,000 units intravenously every three hours.

These doses are somewhat higher than those recommended by other observers^{5,10} and may reflect the needs of a different type of patient. In general, it is known that simple cellulitis or cellulitis with bacteremia responds fairly well to moderate doses.

Infections characterized by well-walled-off abscesses or the presence of necrotic tissue do not respond well to treatment with penicillin alone. Penicillin does not seem to penetrate well into collections of pus surrounded by thick fibrous walls. Dead tissue, especially bone and foreign bodies, protects bacteria. While penicillin will alleviate the systemic toxic manifestations of these infections, it will not cure the local lesion; if penicillin treatment is stopped before the dead bone and foreign bodies have been removed surgically, the infection will undergo a recrudescence. The drug does *not eliminate* the necessity for good surgical treatment though it aids considerably in preparing the patient for operation by eliminating the systemic toxic manifestations.

To date penicillin has been employed in a wide variety of surgical infections. It is not feasible

to review all of them at this time. In general, it may be said that its effect on most cases of simple staphylococcal infection or staphylococcal infection complicated by bacteremia is usually excellent provided treatment is instituted early enough and in adequate doses. In acute osteomyelitis the results are equally impressive, provided treatment is started before destruction of considerable bone has occurred. Treatment of chronic osteomyelitis has been disappointing for those who hoped to avoid surgery. On the other hand, it has been quite satisfactory for those who acquiesced to the removal of sequestra, sinus tracts, and dead bone during the course of therapy.

Pneumococcal, staphylococcal, and streptococcal empyemæ have been cured in some instances without rib resection when penicillin was placed directly into the empyema cavity.¹⁵ It has been of benefit in staphylococcal empyema and in empyema caused by a mixture of anaerobic organisms. There is some evidence to show that the mixed anaerobic infections, such as lung abscess, Ludwig's angina, and bronchiectasis, will respond favorably to large doses of penicillin. To date a sufficient number of these cases has not been treated with adequate doses to justify a final conclusion.

Hemolytic streptococcal infections respond almost dramatically to penicillin, but since most of them are susceptible to sulfonamide therapy, no large number has been treated.

Mixed infections, especially those resulting from war wounds and compound fractures, are more resistant to therapy than those infections caused by a single organism. These infections present a paramount surgical problem. Lyons¹¹ has shown that they will respond to penicillin if the drug is used in conjunction with adequate surgical therapy. The patient should receive perhaps a week of penicillin therapy plus drainage of any obvious abscess; next the wound should be revised and all dead bone, scar tissue, and foreign bodies removed; then penicillin should be continued until the wound is well healed or obviously well on the way to recovery.

Penicillin promises to be an aid in the skin grafting of third degree burns. Skin grafts fail to take because of infection, lack of proper contact between the graft and the granulating bed, and poor blood supply in the granulating bed. By controlling infection with the Gram-positive

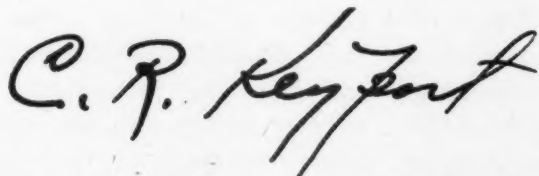
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Is There Another Side to Medicine?

For years, we have talked about the art and science of medicine. Because of years of study, research, and the trial and error method, American Medicine has developed to a most enviable place among the nations of the world. We have developed magnificent programs for continuation studies and are definitely showing the results of these studies.

The advances in public health, in industrial health, the lowered mortality in many diseases, and now the startling results of chemotherapy speak for the science of medicine. While we have been so engrossed in this scientific field, I fear we have lost sight of some of the social and economic phases of medicine. All about us there is a rapidly changing world. Other professions and other businesses have branched out into the social and economic fields which affect their lines of endeavor.

In medicine, for too long we have stood aloof on this other side of medicine, too long have we been the untouchables, too long have we said we are a scientific group. Now that we are being confronted by politicians and bureaus, the shoe is beginning to pinch. The present time calls for united action. We can no longer be just a scientific group, we must be a business league as well. This is not just a problem for the Michigan State Medical Society, but for all the states which comprise the American Medical Association.



President, Michigan State Medical Society



President's



Page





EDITORIAL



POSTWAR PLANS

■ The first and most important project for all of us now is to win the war. To that end we are devoting our most strenuous energies. Everything must be subordinate to the national need. From every standpoint, and for every person, be he laborer, business or professional man, there is the one all-absorbing goal. For that accomplishment we must accept the guidance and the leadership of those placed in authority. There must be central guidance or there will be chaos.

But our experience is that bureaucrats, when given a little authority, always grasp for more, seeking to increase and perpetuate that authority. In cooperating with them for the necessary war efforts, and in accepting their leadership in accomplishing the all-important end, we must not give up our hard-earned advancements and well-established institutions. Our schools must remain independent, our societies voluntary and progressive, and our lives and ideals our own. The schools and societies we must preserve or they will be taken over and dominated by hierarchy to our disadvantage and to the great progress of bureaucracy.

The medical schools are already almost absorbed by the military, but an announcement has just been made that premedical students will not be deferred after July 1, 1944. Again the classes and curriculum are disrupted. Britain did not disturb the ordinary course of professional education, but left it independent, not dominated by the military. Soviet Russia did condense and shorten courses, cutting two years off the medical training, but in 1942 abandoned the plan, having found that it takes about the regular time for proper training of doctors of medicine. Our medical schools are concerned as to their future.

The Michigan State Medical Society committees on Postgraduate Extension and on Postgraduate Medical Education are working on instruction plans to bring the war doctor up to date on the home front practice of medicine, in which he will have grown rusty in his three or more years of war medicine. But the war doctor will

also have something to teach the stay-at-home. There have been great advances in their methods and experiences which the civilian doctor can convert to his own use. Neither the military doctor nor the stay-at-home will have all the advantages, nor all the disadvantages. Many of us were in the First World War, and would not give up numerous lessons that have served us well since returning to civil practice. This will hold in this war also, and the committees should remember that in their planning.

Early in the war it was charged by those who were trying to build an army that the medical profession was not making the proper contribution to "the war effort." We were trying to do a service to the war as well as to civilian practice, in securing for private service enough essential men so the home front would not suffer too great shortages. Our efforts were sadly needed. Just recently we were accused of "contributing nothing constructive and opposing all constructive effort."

Let us view the record. The Michigan State Medical Society has a maximum membership of 4,786 and we have 1,783 members in the military services; also 392 nonmembers, mainly residents and interns. Any organization which has put 40 per cent of its membership into the armed forces can scarcely be accused of noninterest. But that is just the beginning. There are other hundreds, yes thousands, who have worked in season and out for over three years helping with the draft examinations (which have now been put where they should have been all the time, at the induction centers). The men still left in home practice are carrying on the work of their comrades as well as their own. The hours are long and busy, the pace much more exacting than military service with the exception of sacrifice of home comforts and the hazards of war.

But that is self-evident. Has anything constructive been done? Michigan Medical Service was established to prove that good surgical service can be within the reach of all and at predetermined fixed costs, giving the patient his choice of doctor, and all serviced by voluntary

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effort, independent of bureaucracy. This was a pure experiment in untried fields, with no beaten paths and no guiding hand. There were growing pains, mistakes and misguided efforts. Within the past month Michigan Medical Service has announced its favorable experience in converting a staggering deficiency into a surplus. During its trying days of 1941 it was necessary to prorate the payments to the doctors, under the plan that had been worked out. Twenty per cent of payments were deducted. That has all been repaid. Checks have been sent to 3,210 doctors in amounts ranging from \$.40 to just under a thousand dollars. More than one person in every five in the state of Michigan is protected from the catastrophic expense of sickness by Michigan Medical Service. There has been an increasing demand for further protection, and certificates are now being prepared and studies are far under way to give *all medical care in the hospital*. These plans and programs cannot just be *made*, as we found out to our great regret, when the plan was first started. Costly mistakes must not be made again. Progress is faster if it is sufficiently deliberate and secure.

Another postwar plan that must take a prominent place in our thinking, and which in the past has been ignored is public education. We must never again live unto ourselves even though while doing so we have produced the most healthy nation on earth, the lowest mortality records, and the most ideally trained medical profession. Progress must be publicized. The people must know our triumphs, our ideals, our methods and means of study that have made the unprecedented growth of the past few decades. If more attention had been given to publicizing our ideals instead of enjoying them *in spiritu suis*, many of our present troubles just would not have happened.

We need a book.

DOCTORS FOR THE POSTWAR PERIOD

■ We have several times called attention to the needs for the future of well-trained medical men to carry on the work of looking after the health of our people, and questioned where the premedical students would come from, and if it were not essential to look to the future in our planning. The persons in charge of recruiting an army and navy have held their special job uppermost. They have virtually taken over the

conduct of medical education, filling all but 20 per cent of the available student places in the medical schools, and leaving that group for women and and the physically unfit men rejected by the military.

An elaborate Army Specialized Training Program was set up, but was curtailed in April, 1944. A portion of the medical part of that program was retained with an announcement that premedical students actually enrolled in classes by July 1, 1944, would be allowed to continue; all others would be taken into the armed forces.

The Journal of the American Medical Association for June 10, 1944, calls attention to this situation and quotes the Secretary of War and the Secretary of the Navy jointly as advising the War Manpower Commission on May 16, that "the immediate needs of the war for their (students) services ought not to yield to the prospective use of them as doctors in 1949 or thereafter, particularly when it is to be expected that the course of the war will make it possible to release many doctors now in military service."

The Army will furnish 1,790 students and the Navy 1,540 for the entering classes of 1945, leaving 3,110 vacancies to be filled by women and men disqualified for military service. For the natural growth of the profession we need replacements of about 6,500 each year. About 3,500 doctors die each year, and there will be increased needs for many years because of the lessened numbers trained by the various nations affected by the war. It seems shortsighted to close the future opportunities of young men for the study of medicine in order to get a paltry few thousand young soldiers into uniform. It is the part of intelligence and foresightedness not to give up a present real advantage in order to obtain a future presumed advantage. We must win the war, but we must as surely win the peace, and part of the peace is to insure the national health.

RADIO AND PATENT MEDICINES

■ On May 13, 1944, *The Journal of the American Medical Association* called upon the radio industry to emulate the leading newspapers and eliminate the exploitation of the sick through "patent medicine" advertising. The comments were stimulated by the report of illness from use of a nationally advertised headache powder

of two men who had chronic bromide poisoning.

If anyone doubts the rankness of the radio advertising of "patent medicines" it is only necessary to turn on his radio and listen for a half day, if he can find the half day. The stations are practically all filled with such advertising. "Hour after hour, day after day, loud speakers of radios blare forth outrageous claims for some nostrum or patent home remedy. The 'patent' remedies advertised range from those that may be positively harmful, to those that are merely grossly overpriced in relation to their value."

INDUSTRIAL MEDICINE AND SURGERY

■ The Second Annual Conference on Postgraduate Industrial Medicine and Surgery was held at the Rackham Educational Memorial Building, Detroit, on April 6, 1944. The attendance and enthusiasm confirmed the wisdom and value of this program sponsored by the Committee on Industrial Health of the Michigan State Medical Society and the Michigan Association of Industrial Physicians and Surgeons, in coöperation with the Department of Postgraduate Medical Education of the University of Michigan and the Wayne University College of Medicine. The papers were all presented as announced and were of unusually high quality.

In this issue of THE JOURNAL we present several of the papers. They are deserving of study. Physicians and surgeons interested in industrial medicine will find these annual meetings profitable. We congratulate the committee which made the arrangements and prepared the program, and especially Kenneth E. Markuson, M.D., the chairman.

ATTENTION!

■ A new application of the urge to socialize the medical and health services has just (June 29) come to our attention, too late for careful study and judicious comment. There has just been announced an amendment to Article VI of the Constitution of the State of Michigan, adding a new Section 23 setting up a social arrangement far more extensive than the Wagner-Murray-Dingell effusion. The new section fills ten closely typed pages. Petitions are prepared to place this on referendum, but the strategy might be to bring it to vote at the spring elections when a much

smaller number would be necessary to carry (a majority of the votes cast).

"All persons who have their normal residence in Michigan shall be qualified to receive health insurance benefits" which are specified "(a) Medical, Surgical, and Obstetrical benefits, (b) Dental benefits, (c) Pharmaceutical benefit, (d) Hospital benefit, and (e) Nursing benefit." Workmen's compensation and old age benefit are assigned to this service.

The employer must deduct one per cent from the net income of his employe up to \$5,000, two per cent up to \$20,000 and three per cent on incomes over \$20,000, to which he shall add one and a half per cent of his gross payroll. This service is to be administered by a commissioner appointed by the Governor, and a commission of nine. "The legislature shall have the power to pledge the credit of the State for the projects and purposes of this section."

This is legislation by amendment, and the strategy could pass it much easier than to pass the Wagner-Murray-Dingell Bill. It was filed by an attorney.

ON THE RUN

Intermittent attacks of renal colic, with finding of calculi, should suggest hyperparathyroidism.

Present evidence indicates that loss of pancreatic juices does not result in fatty infiltration of the liver.

In intravenous therapy, moist heat locally is best for distending small or poorly-filled veins.

Intussusception of the bowel in adults is quite often caused by tumors of the bowel, principally the benign forms.

Suppositories of aminophyllin have been found helpful in bronchial asthma.

Phonidling: Guesswhoing the busy doctor for play-by-play progress reports on patients.

Persistent postoperative cholecystectomy symptoms may be due to residual inflammation of the biliary tract.

A precipitous drop in body temperature at any time during the last half of the intermenstrual cycle indicates the onset of menstruation in one to three days.

Smoking on an empty stomach just before x-ray study of the gastro-intestinal tract may disturb functional behavior and diminish the value of the test.

In cerebral concussion, the physical intracellular disorder can surpass other complications and cause persistent intellectual defect.

Chlorellin, from a freshwater alga, *Chlorella*, produces effects much like those of penicillin.

Anthiomaline (lithium antimony thiomalate), appears to be of therapeutic value in lymphogranuloma venereum and schistosomiasis.

Gamma globulin, fractionated from blood plasma, contains measles antibodies making it an excellent prophylactic against this disease.

Severe damage is present when cerebral trauma is accompanied by confusion lasting more than twenty-four hours.

Pain is not always a reliable or timely diagnostic symptom in prostatic carcinoma.

Selected by W. S. REVENO

JOUR. MSMS

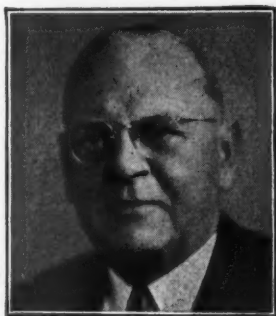
THE 79th ANNUAL SESSION

1944 Postgraduate Conference on War Medicine

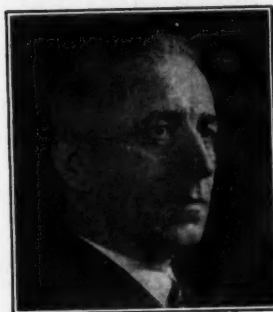
Grand Rapids



V. M. MOORE, M.D.
Grand Rapids
Chairman of Council



C. R. KEYPORT, M.D.
Grayling
President



P. L. LEDWIDGE, M.D.
Detroit
Speaker, House of Delegates



L. FERNALD FOSTER, M.D.
Bay City
Secretary

OFFICIAL CALL

The Michigan State Medical Society will convene in Annual Session in Grand Rapids, Michigan, on September 25, 26, 27, 28, and 29, 1944. The provisions of the Constitution and By-laws and the Official Program will govern the deliberations.

C. R. KEYPORT, M.D.
President

V. M. MOORE, M.D.
Council Chairman

P. L. LEDWIDGE, M.D.
Speaker

E. A. OAKES, M.D.
Vice Speaker

Attest:
L. FERNALD FOSTER, M.D.
Secretary



WM A. HYLAND, M.D.
Grand Rapids
Treasurer

Two-Day Session of House of Delegates, September 25-26

The 1944 House of Delegates of the Michigan State Medical Society will hold a two-day session, beginning Monday, September 25, at 8:00 p.m. The business of the House will be transacted in the ballroom of the Pantlind Hotel, Grand Rapids.

The House will also meet Tuesday, September 26 at 10:00 a.m. and at 8:00 p.m. The intervals between meetings of the House of Delegates have been spaced to permit the reference com-

mittees ample time to transact all business referred to them.

Such additional meetings as may be necessary will be held Wednesday, September 27, beginning at 10:00 a.m.

Seating of Delegates

"Any Delegate-Elect not present to be seated at the hour of call of the First Session may be replaced by an accredited alternate next on the list as certified by the Secretary of the County Medical Society involved."

—MSMS By-Laws, Chapter 3, Section 3.

HOUSE OF DELEGATES, 1944

Ballroom, Pantlind Hotel, Grand Rapids

ORDER OF BUSINESS*

MONDAY, SEPTEMBER 25

8:00 p.m.—First Meeting

1. Call to order by Speaker
2. Report of Committee on Credentials
3. Roll Call
4. Appointment of Reference Committees:
 - (a) On Officers' Reports
 - (b) On Reports of The Council
 - (c) On Reports of Standing Committees
 - (d) On Reports of Special Committees
 - (e) On Amendments to Constitution and By-Laws
 - (f) On Resolutions
5. Speaker's Address—P. L. Ledwidge, M.D., Detroit
6. President's Address—C. R. Keyport, M.D., Grayling
7. President-Elect's Address—A. S. Brunk, M.D., Detroit
8. Annual Report of The Council—V. M. Moore, M.D., Grand Rapids, Chairman
9. Report of Delegates to American Medical Association—Henry A. Luce, M.D., Detroit, Chairman
10. Resolutions**
11. Reports of Standing Committees:
 - (a) Legislative Committee
 - (b) Committee on Distribution of Medical Care
 - (c) Representatives to Joint Committee on Health Education
 - (d) Medical-legal Committee
 - (e) Preventive Medicine Committee
 - Cancer
 - Maternal Health
 - Venereal Disease Control
 - Tuberculosis Control
 - Industrial Health
 - Mental Hygiene
 - Child Welfare
 - Iodized Salt
 - Heart and Degenerative Diseases
 - (f) Committee on Postgraduate Medical Education
 - (g) Committee on Public Relations
 - (h) Committee on Ethics
12. Reports of Special Committees:
 - (a) Committee on Nurses' Training Schools
 - (b) Conference Committee on Prelicensure Medical Education
 - (c) Radio Committee
 - (d) Advisory Committee to Woman's Auxiliary
 - (e) Scientific Work Committee
 - (f) Professional Liaison Committee

*See the Constitution, Article IV, and the By-Laws, Chapter 3, on "House of Delegates."

**All Resolutions, special reports, and new business shall be presented in triplicate (By-Laws, Chapter 3, Section 7-n).

- (g) Beaumont Memorial Committee
- (h) Committee on Procurement and Assignment of M.D.'s
- (i) Postgraduate Extension Committee
- (j) Joint Committee with State Bar of Michigan

Recess

TUESDAY, SEPTEMBER 26

10:00 a.m.—Second Meeting

1. Supplementary Report of Committee on Credentials
2. Roll Call
3. Unfinished Business
4. New Business†
5. Reports of Reference Committees:
 - (a) On Officers' Reports
 - (b) On Reports of The Council
 - (c) On Reports of Standing Committee
 - (d) On Reports of Special Committees
 - (e) On Amendments to Constitution and By-Laws
 - (f) On Resolutions

Recess

TUESDAY, SEPTEMBER 26

8:00 p.m.—Third Meeting

1. Supplementary Report of Committee on Credentials
2. Roll Call
3. Unfinished Business
4. Supplementary Report of The Council
5. Supplementary Report of Reference Committees
6. Elections
 - (a) Councilor:
 - 14th District—Dean W. Myers, M.D., Ann Arbor—Incumbent
 - (b) Delegates to American Medical Association:
 - Henry A. Luce, M.D., Detroit—Incumbent
 - T. K. Gruber, M.D., Eloise—Incumbent
 - Claude R. Keyport, M.D., Grayling—Incumbent
 - (c) Alternate Delegates to American Medical Association:
 - C. S. Gorsline, M.D., Battle Creek—Incumbent
 - Carl F. Snapp, M.D., Grand Rapids—Incumbent
 - R. H. Denham, M.D., Grand Rapids—Incumbent
 - (d) President-Elect
 - (e) Speaker of House of Delegates
 - (f) Vice speaker of House of Delegates

Adjournment

†All Resolutions, special reports, and new business shall be presented in triplicate (By-Laws, Chapter 3, Section 7-n).

THE 79th ANNUAL SESSION

DELEGATES TO MSMS HOUSE OF DELEGATES

Names of Alternates Appear in Italics

Officers

P. L. LEDWIDGE, M.D.
Detroit, *Speaker*
E. A. OAKES, M.D.
Manistee, *Vice Speaker*
L. FERNALD FOSTER, M.D.
Bay City, *Secretary*
H. H. CUMMINGS, M.D.
Ann Arbor, *Immediate Past President*

Allegan

W. C. Medill, M.D., Plainwell
J. E. Mahan, M.D., Allegan

Alpena-Alcona-Presque Isle

W. E. Nesbitt, M.D., Alpena
F. J. O'Donnell, M.D., Alpena

Barry

C. A. E. Lund, M.D., Hastings
C. P. Lathrop, M.D., Hastings

Bay-Arenac-Gladwin-Iosco

C. L. Hess, M.D., Bay City
F. H. Drummond, M.D., Kawkawlin
G. M. Brown, M.D., Bay City
R. N. Sherman, M.D., Bay City

Berrien

D. W. Thorup, M.D., Benton Harbor
R. C. Conybeare, M.D., Benton Harbor

Branch

R. L. Wade, M.D., Coldwater
N. J. Walton, M.D., Quincy

Calhoun

A. T. Hafford, M.D., Albion
H. C. Hansen, Major, M.C., Keesler Field, Miss.
B. G. Holtom, M.D., Battle Creek
G. W. Slagle, M.C., Parris Island, South Carolina

Cass

S. L. Loupee, M.D., Dowagiac

Chippewa-Mackinac

B. T. Montgomery, M.D., Sault Ste. Marie
Clayton Willison, M.D., Sault Ste. Marie

Clinton

W. B. McWilliams, M.D., Maple Rapids
G. H. Frace, M.D., St. Johns

Delta-Schoolcraft

J. J. Walch, M.D., Escanaba
N. J. Frenn, M.D., Bark River

Dickinson-Iron

L. E. Irvine, M.D., Iron River
W. H. Alexander, M.D., Iron Mountain

Eaton

P. H. Engle, M.D., Olivet
C. J. Sevensen, M.D., Charlotte

Genesee

D. R. Braise, M.D., Flint
F. E. Reeder, M.D., Flint
Henry Cook, M.D., Flint
A. C. Pfeifer, M.D., Mt. Morris

M. S. Chambers, M.D., Flint
A. D. Kirk, M.D., Flint
J. T. Connell, M.D., Flint
D. R. Wright, M.D., Flint

Gogebic

W. E. Tew, M.D., Bessemer
H. T. Nezworski, M.D., Ramsey

Grand Traverse-Leelanau-Benzie

R. T. Lossman, M.D., Traverse City
H. B. Kyselka, M.D., Traverse City

Gratiot-Isabella-Clare

M. G. Becker, M.D., Edmore

Hillsdale

L. W. Day, M. D., Jonesville
O. G. McFarland, M.D., North Adams

Houghton-Baraga-Keweenaw

W. A. Manthei, M. D., Lake Linden
Alfred LaBine, M.D., Houghton

Huron

C. W. Oakes, M.D., Harbor Beach
W. B. Holdship, M.D., Ubyly

Ingham

C. F. DeVries, M.D., Lansing
L. G. Christian, M.D., Lansing
R. S. Breakey, M.D., Lansing
J. O. Wetzel, M.D., Lansing
H. W. Wiley, M.D., Lansing
Milton Shaw, M.D., Lansing

Ionia-Montcalm

W. L. Bird, M.D., Greenville
O. P. Geib, M.D., Carson City

Jackson

J. J. O'Meara, M.D., Jackson
C. S. Clarke, M.D., Jackson
C. R. Dengler, M.D., Jackson

Kalamazoo

R. J. Armstrong, M.D., Kalamazoo
L. W. Gerstner, M.D., Kalamazoo
U. S. Gregg, M.D., Kalamazoo
J. D. Littig, M.D., Kalamazoo

Kent

R. H. Denham, M.D., Grand Rapids
L. E. Sevey, M.D., Grand Rapids
A. B. Smith, M.D., Grand Rapids
A. V. Wenger, M.D., Grand Rapids
C. F. Snapp, M.D., Grand Rapids
W. B. Mitchell, M.D., Grand Rapids
P. W. Willits, M.D., Grand Rapids
W. R. Torgerson, M.D., Grand Rapids
S. L. Moleski, M.D., Grand Rapids
J. W. Logie, M.D., Grand Rapids

Lapeer

D. J. O'Brien, M.D., Lapeer
H. M. Best, M.D., Lapeer

Lenawee

E. T. Morden, M.D., Adrian
W. S. Mackenzie, M.D., Adrian

Livingston

H. L. Sigler, M.D., Howell
E. D. Finch, M.D., Howell

THE 79th ANNUAL SESSION

Luce

H. E. Perry, M.D., Newberry
R. E. Spinks, M.D., Newberry

Macomb

A. B. Bower, M.D., Armada
W. A. Sibrans, M.D., East Detroit

Manistee

E. A. Oakes, M.D., Manistee
E. B. Miller, M.D., Manistee

Marquette-Alger

V. H. Vandeventer, M.D., Ishpeming
R. A. Burke, M.D., Negaunee

Mason

C. A. Paukstis, M.D., Ludington
W. S. Martin, M.D., Ludington

Mecosta-Osceola-Lake

G. H. Yeo, M.D., Big Rapids
P. B. Kilmer, M.D., Reed City

Medical Society of North Central Counties

(Otsego-Montmorency-Crawford-Oscoda-Roscommon-Ogemaw)

R. C. Peckham, M.D., Gaylord
H. M. Jardine, M.D., West Branch

Menominee

H. T. Sethney, M.D., Menominee
W. S. Jones, M.D., Menominee

Midland

I. M. Howe, M.D., Midland
W. D. Towsley, M.D., Midland

Monroe

T. A. McDonald, M.D., Monroe
B. J. Fieldhouse, M.D., Monroe

Muskegon

E. N. D'Alcorn, M.D., Muskegon
H. D. Dykhuisen, M.D., Muskegon

Newaygo

H. R. Moore, M.D., Newaygo

Northern Michigan

(Antrim-Charlevoix-Emmet-Cheboygan)

Geo. Wood, M.D., Detroit
W. H. Mast, M.D., Petoskey

Oakland

R. H. Baker, M.D., Pontiac
P. E. Sutton, M.D., Royal Oak
J. S. Lambie, M.D., Birmingham
Z. R. Aschen Brenner, M.D., Farmington
L. F. Cobb, M.D., Pontiac
M. M. Jones, M.D., Dayton Plains

Oceana

M. G. Wood, M.D., Hart
J. H. Nicholson, M.D., Hart

Ontonagon

W. F. Strong, M.D., Ontonagon
H. B. Hogue, M.D., Ewen

Ottawa

A. E. Stickley, M.D., Coopersville
D. C. Bloemendaal, M.D., Zeeland

Saginaw

C. E. Toshach, M.D., Saginaw
L. C. Harvie, M.D., Saginaw
A. J. Cortopassi, M.D., Saginaw
D. C. Durman, M.D., Saginaw

Sanilac

R. K. Hart, M.D., Croswell
N. J. Ellis, M.D., Croswell

Shiawassee

C. L. Weston, M.D., Owosso
H. A. Hume, M.D., Owosso

St. Clair

George Waters, M.D., Pt. Huron
W. A. Schaefer, M.D., Pt. Huron

St. Joseph

R. A. Springer, M.D., Centerville
R. J. Fortner, M.D., Three Rivers

Tuscola

T. E. Hoffman, M.D., Vassar
J. C. Shoemaker, M.D., Vassar

Van Buren

W. R. Young, M.D., Lawton
J. C. Maxwell, M.D., Paw Paw

Washtenaw

J. A. Wessinger, M.D., Ann Arbor
H. M. Beebe, M.D., Ann Arbor
R. N. DeJong, M.D., Ann Arbor
J. S. DeTar, M.D., Milan
S. L. LaFever, M.D., Ann Arbor
M. E. Soller, M.D., Ypsilanti
H. R. Williams, M.D., Ann Arbor
John Sundwall, M.D., Ann Arbor

Wayne

W. D. Barrett, M.D., Detroit
G. L. McClellan, M.D., Detroit
S. W. Insley, M.D., Detroit
R. L. Novy, M.D., Detroit
A. E. Catherwood, M.D., Detroit
H. F. Dibble, M.D., Detroit
L. W. Hull, M.D., Detroit
T. K. Gruber, M.D., Eloise
R. H. Pino, M.D., Detroit
H. A. Luce, M.D., Detroit
D. C. Beaver, M.D., Detroit
C. D. Brooks, M.D., Detroit
F. G. Buesser, M.D., Detroit
W. H. Honor, M.D., Detroit
W. B. Cooksey, M.D., Detroit
R. C. Jamieson, M.D., Detroit
C. E. Dutchess, M.D., Detroit
R. V. Walker, M.D., Detroit
L. J. Morand, M.D., Detroit
W. J. Stapleton, M.D., Detroit
W. W. Babcock, M.D., Detroit
W. B. Harm, M.D., Detroit
L. J. Bailey, M.D., Detroit
W. S. Reveno, M.D., Detroit
C. F. Brunk, M.D., Detroit
E. R. Witwer, M.D., Detroit
M. A. Darling, M.D., Detroit
C. K. Hasley, M.D., Detroit
C. E. Simpson, M.D., Detroit
B. H. Douglas, M.D., Detroit
E. G. Krieg, M.D., Detroit
Arch Walls, M.D., Detroit
T. G. Amos, M.D., Detroit
V. N. Butler, M.D., Detroit
A. F. Jennings, M.D., Detroit

THE 79th ANNUAL SESSION

HOUSE OF DELEGATES, 1944

REFERENCE COMMITTEES

Credentials Committee

J. J. O'Meara, M.D., **Chairman**

Warren W. Babcock, M.D.
T. A. McDonald, M.D.
H. T. Sethney, M.D.
Arch Walls, M.D.

Officers' Reports

L. W. Day, M.D., **Chairman**

F. G. Buesser, M.D.
H. E. Hanson, M.D.
Ralph H. Pino, M.D.
D. W. Thorup, M.D.

Reports of the Council

Wyman D. Barrett, **Chairman**

W. L. Bird, M.D.
A. F. Jennings, M.D.
V. Van Deventer, M.D.
Hollis L. Sigler, M.D.
R. A. Springer, M.D.
George Waters, M.D.

Reports of Standing Committees

Donald C. Beaver, M.D., **Chairman**

M. G. Becker, M.D.
Milton A. Darling, M.D.
R. T. Lossman, M.D.
W. B. Harm, M.D.
W. E. Nesbitt, M.D.
Carl Ratigan, M.D.

Reports of Special Committees

A. V. Wenger, M.D., **Chairman**

L. W. Gerstner, M.D.
W. H. Honor, M.D.
L. J. Morand, M.D.
C. W. Oakes, M.D.
D. J. O'Brien, M.D.
Richard Peckham, M.D.

Amendments to the Constitution and By-Laws

C. L. Hess, M.D., **Chairman**

Robert Breakey, M.D.
T. K. Gruber, M.D.
J. A. Kasper, M.D.
S. L. Loupee, M.D.

Resolutions

D. R. Brasie, M.D., **Chairman**

Robert H. Baker, M.D.
John S. DeTar, M.D.
R. H. Denham, M.D.
Ford DeVries, M.D.
L. W. Hull, M.D.
Ralph A. Johnson, M.D.
G. L. McClellan, M.D.
R. L. Novy, M.D.

R. A. Johnson, M.D., Detroit
J. A. Kasper, M.D., Detroit
H. L. Clark, M.D., Detroit
C. S. Ratigan, M.D., Detroit
Duncan Campbell, M.D., Detroit
W. S. Gonne, M.D., Detroit
F. A. Weiser, M.D., Detroit
H. W. Plaggemeyer, M.D., Detroit
J. E. Cole, M.D., Detroit
R. C. Connelly, M.D., Detroit
J. H. Andries, M.D., Detroit
S. E. Gould, M.D., Eloise
L. T. Henderson, M.D., Detroit
D. I. Sugar, M.D., Detroit
W. P. Woodworth, M.D., Detroit
R. M. Athay, M.D., Detroit
W. P. Chester, M.D., Detroit
W. A. Chipman, M.D., Detroit
Wm. Hamilton, M.D., Detroit
B. C. Lockwood, M.D., Detroit
J. H. Law, M.D., Detroit
W. N. Braley, M.D., Detroit
A. V. Forrester, M.D., Detroit
M. H. Hoffman, M.D., Detroit
W. W. MacGregor, M.D., Detroit
B. L. Connelly, M.D., Detroit
C. L. Candler, M.D., Detroit
G. L. Coan, M.D., Detroit
J. K. Bell, M.D., Detroit
S. A. Flaherty, M.D., Detroit
F. W. Hartman, M.D., Detroit
Joseph Hickey, M.D., Detroit
E. H. Lauppe, M.D., Detroit
J. J. Lightbody, M.D., Detroit
H. L. Morris, M.D., Detroit
H. A. Pearse, M.D., Detroit
L. J. Gariepy, M.D., Detroit
R. H. Bookmyer, M.D., Detroit
D. A. Cohoe, M.D., Detroit
L. O. Geib, M.D., Detroit
G. B. Hoops, M.D., Detroit
W. R. McClure, M.D., Detroit
Jack Agins, M.D., Detroit
E. M. Vardon, M.D., Detroit
A. H. Bracken, M.D., Detroit
Meshel Rice, M.D., Detroit
J. B. Rieger, M.D., Detroit

Wexford-Missaukee-Kalkaska

W. J. Smith, M.D., Cadillac
C. E. Merritt, M.D., Manton

WHAT IT TAKES TO BE A DOCTOR OF MEDICINE

1. Four Years of High School
2. Two Years of College (including Physics, Chemistry, and Biology)
3. Four Years in a Medical College
4. One Year's Internship in a Hospital
5. A Knowledge of the Human Body. Its Normal Structures, Functions and Governing Laws
6. A Knowledge of All Common Diseases in Order to Know What Disease is Present
7. A Knowledge of Effective Remedial Agents. Ability to Apply the One Most Needed

THESE MINIMUM ESSENTIALS SHOULD BE POSSESSED BY
ALL WHO TREAT THE SICK

THE 79th ANNUAL SESSION

PROPOSED AMENDMENTS TO CONSTITUTION AND BY-LAWS OF MICHIGAN STATE MEDICAL SOCIETY

The following amendments to the Constitution were presented at the 1943 Annual Session of the House of Delegates, Michigan State Medical Society, and, according to the Constitution, were referred to the 1944 session of the House of Delegates for final consideration:

Constitution

1. Amend Article III, Section 4, by adding a new sub-paragraph to read as follows:

"Physicians, residents of the State of Michigan, for the period of time they are in active Military Service of the United States previous to their engaging in active practice."

COMMENT: This proposed amendment would make it possible for the County and State Societies to offer membership to Doctors of Medicine residing in Michigan who enter into active Military Service of the United States before engaging in private practice (such as interns and residents).

* * *

2. Amend Article III, Section 4, by adding a new sub-paragraph to read as follows:

"Active Members, by transfer, for the period of time they are temporarily out of active practice on account of protracted illness."

COMMENT: This proposed amendment would cover active members who may be unable to practice medicine for extended periods of time on account of protracted illness and who may either be ineligible for transfer to Retired Membership or be unable to pay annual dues.

* * *

3. Amend Article III, Section 4, Item 4, to read as follows:

"Physicians not engaged in any phase of medical practice, including members not in practice due to protracted illness."

COMMENT: This proposed amendment has the purpose as the proposed amendment No. 2.

* * *

4(a). Amend Article III by adding a new Section to be known as Section 8, to read as follows:

"Life Members. A physician who has attained the age of seventy years or more and maintained an active membership in good standing for ten years or more in the State Society may, upon application and recommendation of his County Society, be transferred to the Life Members' Roster by election in the House of Delegates. He shall have the right to vote and hold office but shall pay no dues to the State Society. Requests for transfer shall be accompanied by certification by the Secretary of the State Society as to years of membership in good standing."

"The County Society of such member shall make request for certification, in writing, to the Secretary of the State Society thirty days or more in advance of the Annual Session."

4(b). Amend Article III, Section 1 by adding to the list of memberships the following:

"Life Members."

4(c). "BE IT RESOLVED that these amendments shall take effect and be incorporated in the Constitution at the Annual Session following the termination of the present World War."

COMMENT: A resolution was presented in 1942 recommending Emeritus Membership to members at the age of seventy years or more. The Committee on Constitution and By-Laws felt that Life Membership, as proposed above, would represent years of age while Emeritus Membership represents years of service; it also felt that any further reduction of active members paying dues, other than those in Military Service, would seriously reduce the income of the Society and included in its resolution that the above amendment to the Constitution, if approved, shall take effect at the Annual Session following the termination of the present World War.

* * *

5. Amend Article VIII, Section 2, to read as follows:

"The House of Delegates at each Annual Session shall elect the President-Elect, the Speaker and Vice Speaker of the

House of Delegates, and the Councilors. These officers shall be installed in the general meeting at which the reports of the House of Delegates are received. They shall serve until the corresponding time of the next annual session except that the Councilors shall serve for five annual sessions. The terms of the Councilors shall be arranged so that not more than four terms expire normally at any annual session. All these officers shall serve until their successors are elected and take office.

"At the annual session next following his election the President-Elect shall be installed into and assume the office of Presidency immediately following the annual address by the retiring President and shall serve until the corresponding time of the next annual session. This assumption of office shall occur in the general meeting at which the reports of the House of Delegates are received."

"If no general meetings are held at the annual session, then induction into the office of the incoming president and the newly-elected officers shall be in the last meeting of the annual session of the House of Delegates."

"The Secretary, the Editor of the JOURNAL and the Treasurer shall be elected by the Council in its annual meeting in January of each year. They shall take office immediately and serve for a term of one year or until their successors are elected and take office."

COMMENT: This clarifies the election of the President-Elect who automatically becomes the President when the Presidency becomes vacant.

* * *

By-Laws

6. Amend Chapter 6, Section 9 to read as follows:

"The Committee on Ethics shall consist of five members appointed by the President with the approval of the Council to serve for five-year terms, so staggered that one member is selected annually, except that in 1944 one member shall be selected for a five-year term, one for a four-year term, one for a three-year term, one for a two-year term, and one for a one-year term."

"If a member dies, resigns, or is disqualified prior to the expiration of his term, the President may appoint a successor to serve until the next meeting of the Council which, if it approves, may select him to serve the unexpired portion of the term."

"The following rights and duties devolve on the Committee:

"1. To render, on the request of the Council or of a component society, advisory opinions on questions of ethics submitted to it;

"2. To assist county societies in setting up schemes of integration between such county society committees as have duties and functions similar to the duties and functions of this committee and the Medico-Legal Committee of this Society;

"3. To integrate, so far as possible, its activities with the activities of the Medico-Legal Committee of this Society;

"4. On the request of a component society or of any member of this Society, to conduct such investigation or hearing, or both, as it deems appropriate, concerning the professional conduct of any member of this Society and to report to the component society to which the physician under inquiry belongs, its findings and conclusions as to the ethical propriety of the conduct in question for such further action as the component society may deem proper, provided however, that in the event of a finding adverse to the physician under inquiry if the physician agrees to amend his conduct to conform with the conclusions of ethical propriety made by the Committee, the Committee may in its discretion dispose of the matter and report its action to the appropriate component society;

"5. If a component society fails to institute disciplinary proceedings against a member with respect to whom the Committee has filed an adverse report, in its discretion to prefer written charges in the form and manner specified by the component society's organic laws with the secretary of the component society involved and, through a member or members of the Committee, to perform all acts that are reasonably necessary and proper in the prosecution of such charges; and

"6. To make annual reports to the State Secretary."

"A member who is guilty of any of the following acts shall be subject, in the discretion of the county society, to expulsion, suspension, or admonition:

"1. A criminal offense involving moral turpitude;

"2. Gross misconduct as a physician or citizen;

"3. Violation of the Principles of Medical Ethics;

"4. The willful commission of any act tending to defeat the aims, purposes, or objects of this Society or to bring the Society into disrepute;

"5. The willful refusal to adhere to the Constitution and By-Laws of the Society; or

"6. The giving of any testimony in any court of law or administrative proceeding which in the opinion of the Council of the Society is reckless, willfully false or fraudulent, or is not in keeping with the dignity or scientific standards of the profession."

COMMENT: This proposed amendment, to clarify the duties of the MSMS Committee on Ethics, was considered briefly by the 1943 House of Delegates which referred it back to the Committee on Constitution and By-Laws for study.

—Committee Reports—

ANNUAL REPORT OF ETHICS COMMITTEE, 1943-44

The Ethics Committee respectfully reports that it has had more difficulty this year in one particular problem involving alleged breach of ethics than in all of the past three years. We certainly hope to have the matter settled by the time the "Handbook for Delegates" is printed. There has been only this one incident during the entire year.

Respectfully submitted,

HORACE WRAY PORTER, M.D., *Chairman*
E. B. ANDERSON, M.D.
GUY D. CULVER, M.D.
J. C. GROSJEAN, M.D.
L. C. HARVIE, M.D.
GEO. B. HOOPS, M.D.
ESLI T. MORDEN, M.D.
LEMOYNE SNYDER, M.D.

ANNUAL REPORT OF BEAUMONT MEMORIAL COMMITTEE, 1943-44

The Beaumont Memorial Committee has not had a meeting this year.

The Early House on Mackinac Island where William Beaumont first treated his famous patient, Alexis St. Martin, has been purchased by Parke, Davis & Company and has been given to the Mackinac Island State Park Commission to hold as a public museum.

The objective of your Committee originally was to see that the Early House became the property of the State of Michigan. This has been accomplished, through the generosity of Parke, Davis & Company. The Chairman of your Committee wrote to W. F. Doyle, Chairman of the Mackinac Island State Park Commission, stating that the Beaumont Memorial Committee of the Michigan State Medical Society would be glad to coöperate with him in any way in efforts that might be made to restore the Early House or to make it a museum.

Respectfully submitted,

FREDERICK A. COLLIER, M.D., *Chairman*
F. C. KIDNER, M.D.
H. C. MAYNE, M.D.
ALLAN McDONALD, M.D.
LAWRENCE REYNOLDS, M.D.

ANNUAL REPORT OF IODIZED SALT COMMITTEE, 1943-44

The Iodized Salt Committee has held no meetings, to June 1, 1944. However, a meeting during the summer months is probable as the Ten-Year Survey of surgical goiter cases in Michigan's seven largest hospitals is due in 1945. The survey of school children living in the four surveyed counties is also due in 1945. Ways and means will have to be sought for these surveys.

A supplemental report of the Iodized Salt Committee will be presented to the House of Delegates in September.

Respectfully submitted,

F. B. MINER, M.D., *Chairman*
T. B. COOLEY, M.D.
L. W. GERSTNER, M.D.
DORMAN E. LICHTY, M.D.
R. D. McCLURE, M.D.
R. J. MOEHLIG, M.D.

ANNUAL REPORT OF ADVISORY COMMITTEE TO WOMAN'S AUXILIARY, 1943-44

No meetings were requested and therefore no meetings were held. However, the President of the Woman's Auxiliary to the Michigan State Medical Society consulted with the Chairman on several occasions.

Respectfully submitted,

F. E. REEDER, M.D., *Chairman*
WM. S. JONES, M.D.
W. JOE SMITH, M.D.

ANNUAL REPORT OF CANCER CONTROL COMMITTEE, 1943-44

1. The Cancer Manual was published and distributed to members of the Michigan State Medical Society during the past year.

The Committee studied plans for future distribution of the Manual including the granting of permission to other state medical societies to use part or all of the material in the book. It also discussed the preliminary overtures made by a large medical publishing house to reprint the Cancer Manual to give it the wider distribution it merits.

The most sincere appreciation of the Cancer Control Committee is expressed to all the State Society members who contributed chapters for the Cancer Manual, and to the many others who aided with their active help and advice in the preparation of this work—a real contribution to Medicine.

2. A small pamphlet or brochure containing pertinent facts about cancer for distribution to nurses and social workers, in order that they may be adequately informed to properly advise those with whom they are in contact and who seek their opinion, was favorably discussed and plans for its formation were adopted.

3. The Cancer Control Committee recommends that county medical societies devote at least one program yearly to Cancer Control.

4. The Committee recommends that more emphasis be placed on cancer discussions in future conferences arranged by the MSMS Committee on Postgraduate Medical Education.

5. The Committee further recommends that the cancer-tumor clinics throughout the State be urged to form a coöperative group and have adjacent territorial group discussions and clinics at least once yearly, using their clinical material in conjunction with the clinical pathological discussion.

Respectfully submitted,

WM. A. HYLAND, M.D., *Chairman*
J. H. COBANE, M.D.
F. A. COLLIER, M.D.
C. E. DEMAY, M.D.
C. K. HASLEY, M.D.
ROLLIN H. STEVENS, M.D.
C. V. WELLER, M.D.

ANNUAL REPORT OF COMMITTEE ON INDUSTRIAL HEALTH, 1943-44

1. In an attempt to conserve manpower, gasoline, and rubber, the Committee on Industrial Health held only one meeting during the year, on February 3, 1944. The chief purpose of this meeting was to develop a program and to make plans for the Second Annual Industrial Health Conference. The Conference this year was held on April 6 and was jointly sponsored by the Committee on Industrial Health, MSMS and the Michigan Association of Industrial Physicians and Surgeons in coöperation with The Department of Postgraduate Medical Education, University of Michigan,

COMMITTEE REPORTS

and the Wayne University College of Medicine. The meeting was attended by 231 individuals including physicians, nurses, personnel and employment men and a number of plant managers. The attendance was very gratifying, considering present conditions.

2. The Committee on Industrial Health sponsored four programs for county medical societies, including St. Clair County, Hillsdale County, Barry County and Eaton County. These four groups were addressed by Orlen J. Johnson, M.D. of the Council on Industrial Health of the American Medical Association.

3. The Committee on Industrial Health of the Wayne County Medical Society has developed an excellent health program for small industries, and copies of this program may be obtained from that County Society.

Respectfully submitted,
KENNETH E. MARKUSON, M.D., *Chairman*
H. H. GAY, M.D.
FRANK T. MCCORMICK, M.D.
C. K. HASLEY, M.D.
A. L. BROOKS, M.D.
HENRY COOK, M.D.
W. A. DAWSON, M.D.
W. B. HARM, M.D.
WM. P. CHESTER, M.D.
C. D. SELBY, M.D.

ANNUAL REPORT OF THE COMMITTEE ON NURSES TRAINING SCHOOLS, 1943-44

This committee has not met. In contacting the Michigan State Board of Registration for Nurses, the Chairman finds that they have done everything humanely possible to increase the supply. Likewise, they are so busily engaged in the excess work placed upon them that any discussion with them regarding changes we would like to see made, would be fruitless. They are definitely committed to the idea of raising the standards of nursing, which undoubtedly is a fine thing. Regarding the problem of distribution of these nurses, so that they may be equally distributed, they have no solution, and do not regard the establishment of Schools of Nursing in smaller communities as the proper answer.

Under these circumstances the Chairman did not deem it expedient to call a meeting of his committee for this year.

Respectfully submitted,
ELLERY A. OAKES, M.D., *Chairman*
A. L. ARNOLD, M.D.
C. G. CLIPPERT, M.D.
A. E. STICKLEY, M.D.
D. W. THORUP, M.D.

ANNUAL REPORT OF LEGISLATIVE COMMITTEE, 1943-44

During the year 1944, your Legislative Committee held no meeting.

1. Two extra sessions of the Michigan Legislature were held, one in February and one in June. At the February session, bills covering appropriations to run the State Government for the fiscal year beginning July 1, 1944 were enacted, as well as Governor Kelly's juvenile delinquency and aid to veterans program. A total of 62 bills were introduced of which 5 were of special interest to Doctors of Medicine. These were discussed in detail in the April 1944 MSMS JOURNAL (page 280) and were designated as House Bills 8 and 9, and Senate Bills 1, 9, and 20.

At the June Session, only a proposal to validate the federal ballot for Michigan soldiers was considered.

2. Two matters were referred to the Legislative Committee by the 1943 MSMS House of Delegates:

(a) Hospital Licensing Act. The House of Delegates recommended that the Legislative Committee be in-

structed to explore the project, and to approve or disapprove such specific legislation as may be introduced.

The Legislative Committee wishes to report that, up to June 15, it had not been approached by any groups or individuals concerning the introduction of any such proposed legislation into the 1945 Legislature. If and when the proponents of a Hospital Licensing Act have completed their studies and developed a bill, the Legislative Committee will consider it carefully and follow the instructions of the House of Delegates.

(b) Taxes on Medical Homes. Copies of this Resolution, considered by the 1943 House of Delegates, were forwarded to all members of the Legislative Committee for their study and advice. A further statement on this matter will be presented to the 1944 House of Delegates in a supplemental report of your Legislative Committee.

3. Your Legislative Committee has cooperated with the American Medical Association in recommended contacts with members of the U. S. Congress on various proposals affecting Medicine and public health. The Committee wishes to report that, as in the past, it has received prompt and courteous consideration at the hands of U. S. Senators and Congressmen from Michigan.

Respectfully submitted,
HAROLD A. MILLER, M.D., *Chairman*
A. S. BRUNK, M.D.
V. M. MOORE, M.D.
R. G. COOK, M.D.
T. K. GRUBER, M.D.
S. L. LOUPEE, M.D.
G. L. MCCLELLAN, M.D.
H. L. MORRIS, M.D.
DEAN W. MYERS, M.D.
R. V. WALKER, M.D.
A. V. WENGER, M.D.
ELMER SCHNOOR, M.D.
JOHN J. WALCH, M.D.
L. G. CHRISTIAN, M.D., *Advisor*

ANNUAL REPORT OF CHILD WELFARE COMMITTEE, 1943-44

The Child Welfare Committee of the MSMS had one meeting to discuss two important problems.

I. The Grand Rapids Clinic problem with the following suggestions as to clinics in general.

1. The present economic situation does not warrant an extension of pediatric clinics.
2. The extension of pediatric clinics does not increase the availability of pediatric service. A pediatrician should be able to see patients more efficiently in his office than in a clinic.
3. If specialist care is not desired—services could be better rendered by the family physician in his own office.

II. Postwar Pediatrics. In the discussion of these problems we hoped to stimulate further study and made the following observations pertinent thereto.

1. Number of residencies in pediatrics will be inadequate.
2. There will have to be extramural training programs.
 - (a) Programs could be carried on in hospitals with visiting teaching personnel.
 - (b) Preceptor systems could serve in many instances. This program would serve to inculcate in men the principles so necessary to maintain.
 - (c) Preceptor system would also be "coronary" insurance for the older men.
3. The necessity for enlarging the scope of pediatric practice—looking at the whole child in a broader sense with regard to those problems of medical significance that might be assumed by

COMMITTEE REPORTS

lay groups—teachers, social worker, et al., was discussed.

The medical profession must be aware of the changing picture of the problems of medicine and the influence of new therapeutics on the patient.

The Committee also recommended that plans for postgraduate and refresher courses for doctors of medicine in all branches of medical practice, be developed and made ready for operation as soon as needed after the duration. During the discussion of this particular problem in the Preventive Medicine Committee meeting of May 25, 1944, it was suggested that the MSMS and other specialized groups maintain intimate contact with their members in the Armed Forces, in order to smooth out the readjustment period.

Respectfully submitted,
FRANK VAN SCHOICK, M.D. *Chairman*
R. M. KEMPTON, M.D., *Vice Chairman*
MOSES COOPERSTOCK, M.D.
CAMPBELL HARVEY, M.D.
CHAS. F. MCKHANN, M.D.
A. L. RICHARDSON, M.D.
L. J. SCHERMERHORN, M.D.
L. PAUL SONDA, M.D.

ANNUAL REPORT OF VENEREAL DISEASE CONTROL COMMITTEE, 1943-44

Three meetings of the committee were held during the year: Detroit, September 22, 1943; Lansing, December 19, 1943, and Lansing, April 23, 1944.

Each meeting was preceded by a meeting of the Joint Committee on Venereal Disease Control of the State Bar Association and the Michigan State Medical Society. The activities of the joint committee are covered in a separate report.

The chief matters of new business discussed before our committee included the following:

Definition of infectious syphilis for the State Council of Health for the 1943 Regulations.

Oxidation and color changes in mapharsen.

Coöperation in the Postgraduate Program with one of our members joining the four-man team which made a tour through the Upper Peninsula for one week in May, 1944.

A request for quantitative Kahn tests was made to the laboratory to the State Health Department. We were advised that service could not be supplied at the present time because of the manpower shortage.

It was decided to revise the application blanks for special dispensation for marriage to include more instructions as to the type of information desired. These new blanks will be available in the near future.

Discussion of the prophylactic kit took place at each meeting without much further progress. The statement made in our last annual report to the effect that such kits would bear the statement "approved by the Michigan State Medical Society" was discussed before the Council and amended to read as follows: "This procedure carries the endorsement of the Venereal Disease Control Committee of the Michigan State Medical Society." It is indicated to await the results of investigations being carried out through the National Research Council on newer methods of prophylaxis to be recommended to the military services before pushing our proposed joint program with the druggists on chemical prophylaxis in civil life.

Respectfully submitted,
L. W. SHAFFER, M.D., *Chairman*
R. S. BREAKEY, M.D.
KENT ALCORN, M.D.
RUTH HERRICK, M.D.
HARTHER L. KEIM, M.D.
F. J. O'DONNELL, M.D.
R. S. RYAN, M.D.
WM. R. VIS, M.D.
N. W. GUTHRIE, M.D.

ANNUAL REPORT OF JOINT COMMITTEE ON V.D. CONTROL OF THE STATE BAR OF MICHIGAN AND THE MICHIGAN STATE MEDICAL SOCIETY, 1943-44

This committee met three times during the year: September 22, 1943, at the Statler Hotel, Detroit; December 19, 1943, at the Hotel Porter, Lansing; April 23, 1944, at the Hotel Olds, Lansing. Modification of the premarital law was discussed and a proposed amendment is being prepared for submission to the next meeting of the state legislature. Some provision for permitting the marriage of pregnant girls, who have venereal disease, is essential.

The sources of venereal disease in the army were studied in Wayne County by the subcommittee for that area, which found that an appreciable proportion, about 35 per cent of army infections thought to have been acquired in that area, gave as their place of encounter a beer garden, tavern or similar place of amusement. Similar figures were found for the entire state. It was decided that this was the proper place to attempt to reduce the incidence of venereal infection in the army in this area. A coöperative program was developed with the Michigan Liquor Control Commission in which the places of encounter reported to the State Health Department by the Army as having led to venereal infection were listed and supplied to the Liquor Control Commission. This commission wrote letters to the named taverns advising that they had been named as sources of venereal infections and that they were under surveillance. One place has had its liquor license revoked. Many of the places have been investigated personally. This program has had a beneficial effect by inducing tavern owners to discourage the patronage of unaccompanied females and it has made the tavern owners more willing to coöperate with health department investigators who are trying to find the girls who have been named as sources or contacts of venereal infection.

Juvenile delinquency was studied from the point of view of venereal disease and statistics were submitted showing that the proportion of all venereal infections reported as occurring in persons of teen-ages has increased during recent years.

Respectfully submitted,
N. W. GUTHRIE, M.D., *Chairman*
HARTHER L. KEIM, M.D.
L. W. SHAFFER, M.D.
R. S. BREAKEY, M.D.

Red Letter Days

September, 1944

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12				
17	18	19				
24	25	26	27	28	29	





YOU AND YOUR BUSINESS



DETROIT MEDICAL CENTER

The Detroit Board of Education has approved a recommendation that the Corporation Council proceed with the condemnation of a site for the first unit of the Wayne University Medical Science Center.

The area includes the two blocks lying between Farnsworth and Theodore and running from Beaubien to Hastings, as well as a third block between Frederick, St. Antoine, Farnsworth and Beaubien. This will be the site of the Wayne University-County Hospital. None of the buildings in the condemned area will be demolished or the tenants removed until the war is ended, or such earlier time as the housing situation is eased.

MEDICINE OR SOCIALIZED MEDICINE

Medicine has to its credit a long list of discoveries and inventions which have to do with the most vital interests of humanity. With few exceptions these discoveries and inventions have come through individual effort. If they had been protected by patents, capitalized, commercialized, and paid for in proportion to their relative value, physicians and their families would now be in possession of much of the world's wealth. The members of the medical profession have preferred to say "This will prevent or cure disease; this will relieve suffering; this will save life; this is good for humanity and must be made available to all."—LEWIS J. MOORMAN, J. Oklahoma State M. A., April, 1944.

AMERICAN HOSPITAL ASSOCIATION NAMES TWO NEW COUNCIL SECRETARIES

In keeping with its policy of research and service for members and to facilitate a more complete understanding of the complexities of health maintenance, the American Hospital Association announces the appointment of two new council secretaries.

Dr. Hugo V. Hullerman will be secretary of the Council on Professional Practice which coordinates matters of a professional nature in hospitals. Its scope covers affairs dealing with *medical service*, nursing, dietetics, social service, *x-ray*, *physical therapy* and related subjects.

Until his resignation to assume his new duties with the American Hospital Association, Dr. Hullerman was chief of the division of maternal and child hygiene of the Illinois department of health at Springfield. A graduate of the University of Minnesota medical school, Dr. Hullerman received a master of science degree in public health at the University of Michigan in 1938.

Hazen Dick is the newly appointed secretary of the association's Council on Administrative Practice. This council correlates for association members information of such general administrative fields as hospital economics, admission and collection procedure, personnel relations, accounting, and similar management responsibilities. Mr. Dick has been administrator of both the Louisville General Hospital and Waverly Hills Sanatorium in Kentucky.

NATIONAL FOUNDATION FOR THE CARE OF ADVANCED CANCER PATIENTS

Frank E. Adair, M.D., and four others organized the National Foundation for the Care of Advanced Cancer Patients. A sponsoring committee of sixty has been formed. The organization followed a study of conditions now prevailing where the indigent cancer patients are comparatively well provided for, but suitable provision is needed for the advanced cancer patients of moderate means. In some cases the report says the cost of the care of advanced cancer patients is prohibitive.

It is planned to make this proposal national in scope.

SHORTAGE OF PHYSICIANS

The physician shortage is purely a wartime situation. As the military forces increased the number of doctors necessary to meet the needs of the expanded army and navy services rose to over fifty thousand. Where there was one doctor for each 800 population there is now one for about 1,200, and the younger and more energetic have been taken into the armed forces, leaving the number of effective doctors much less than one to 1,200.

The nation's civilian physicians are doing all in their power to maintain during wartime the high level of medical care our nation enjoyed during peacetimes. The Office of War Information made a survey of the doctor shortage, and said "luxury medicine is out for the duration. Doctors will have to restrict their attention to those actually in need of them, and *patients must no longer insist on one particular favorite physician.*"

This agency found that those doctors left on the home front are not only working harder, but are actually working themselves to exhaustion.

The OWI offers some suggestions for the public to help out in the emergency, but it cannot avoid an ingenious hint leading to state medicine, as witness the italics, which are ours. (Editor)

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MICHIGAN'S DEPARTMENT OF HEALTH

WM. DE KLEINE, M.D., Commissioner, Lansing, Michigan



SALMONELLA PANAMA

The recent high incidence of meningitis of the newborn in Battle Creek and vicinity has been found to be due to *Salmonella panama*, a bacillus belonging to the enteric group and closely related to the typhoid bacillus.

Salmonella panama which, in older children and adults, generally causes a moderate gastro-enteritis, may invade the blood stream in the very young and result in meningitis with a high fatality rate.

An outbreak of this infection in hospital nurseries can be brought under control by the adoption of a technique similar to that used for the control of typhoid and other intestinal infections.

A number of carriers of *Salmonella panama* have been discovered among adults, a very significant fact. At present all known carriers are being given the same supervision by local full-time health departments as are typhoid carriers.

The Calhoun County Medical Society has appointed Doctors Schelm, Melges, LaPorte, Finch, Robins and Hoyt as a committee to work coöperatively with the City, County and State Health Departments to determine the original source of the outbreak.

Members of the Motor Corps of the local Red Cross are assisting by making home calls on contacts to obtain histories and stool specimens. At this time over sixty carriers have been identified among apparently healthy individuals.

Since *Salmonella panama* is spread in the same manner as typhoid, special attention is being paid to water and milk supplies, sewage disposal and sanitation in general. It has come to the attention of the Michigan Department of Health that many communities use sludge that has not been heat dried from their local sewage disposal plants for garden fertilizer. Although we have no positive proof, it is possible that this practice may be a factor in spreading this infection.

PINE CREST SANATORIUM

The State Sanatorium Commission has taken title to Pine Crest Sanatorium, Oshtemo, following authorization by the legislature. It will be known as the Pine Crest State Sanatorium. Dr. A. D. Calomeni, assistant di-

rector of the bureau of tuberculosis control, Michigan Department of Health, has been given temporary leave to direct this institution.

V-D RAPID TREATMENT

The Michigan Department of Health Rapid Treatment Center in Ann Arbor is scheduled to open in June. Any person with infectious syphilis or gonorrhea will be eligible for admission to this 150-bed center. Dr. Nelson Ryan has been assigned to the Michigan Department of Health by the U. S. Public Health Service to have charge of this Michigan center. Requests for admission must be made through the local health officials to Dr. Ryan.

PENICILLIN DISTRIBUTION

The Office of Civilian Penicillin Distribution has announced that beginning in May, 100 million Oxford units of penicillin will be available each month for Michigan hospitals. This will include all state hospitals, prisons, boys vocational school, girls training school and the schools for the blind and deaf. Purchasing will be done through the Michigan Department of Health and the purchasing division of the state administrative board.

CLASSIFIED ADVERTISING

SHERWOOD COUNTRY SCHOOL.—For resident children 3-13. 60-acre estate in beautiful Bloomfield Hills, 18 miles North of Detroit. Write: Dr. Katherine B. Greene, Ph.D., Director Sherwood School, Bloomfield Hills, Michigan.

FOR RENT.—Office with established practice, nothing to buy; all equipment furnished, contact Frank A. Ware, M.D., 3519 Fenton Road, Flint, Michigan.

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JULY, 1944

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Woman's Auxiliary



LOOKING AHEAD

Another year of auxiliary activities, Red Cross work, War Loan drives, aid to the war effort and increased household tasks is coming to an end. We can look back with pride to our accomplishments during the past year, but we cannot slacken our efforts. Rather, they must be increased so that we will do our share to hasten the day of victory and peace.

Too much credit cannot be given your president, Mary Walch, and her untiring committee chairmen for the inspiration and guidance they have given each county auxiliary this last year. That your president-elect and the new committee chairmen may make their plans for the coming year, I should like to ask the county presidents for 1944-1945 to:

1. Read the Handbook given each county auxiliary September 1943.
2. Read the Bulletin (official publication of the Woman's Auxiliary to the AMA).
3. Read the pages devoted to auxiliary activities in the journals of the MSMS and the AMA.
4. Talk with auxiliary members about the Radio-Speech contest, Student Loan Fund, legislative activities and the Cadet Nurse Corps.
5. *Write Me.* I shall be glad to answer any question that I can and will appreciate any suggestions about improving the past methods of handling these projects or the adoption of new projects.

I wish to thank the president and officers for their unusual coöperation in keeping me informed of all auxiliary activities this year. With this help, and with the continued effort and coöperation of each Auxiliary member, 1944-1945 should be another successful year in the history of the Auxiliary.

LELA W. FRENCH, *President-elect*

Ingham County

Past presidents of the Auxiliary to the Ingham County Medical Society were honored at a tea given for members and guests recently in the home of the president, Mrs. T. I. Bauer, East Lansing. Albert Christ-Janer of Michigan State College art department gave a scholarly lecture, "Understanding the Arts," and exhibited and analyzed lithographs by John A. de Martelly and Charles Pollock, both of the college art department.

Mrs. Bauer presided. Mrs. Guy Kiefer, first president and later honorary president of the State Auxiliary, spoke on the importance of the work of medical auxiliaries and described the organization of the State Auxiliary.

Mrs. L. M. Folkers introduced Mr. Christ-Janer, who described the power of comprehension of art as

a measure of one's wisdom, sensibilities, and intellectual vitality, requiring the education of the whole man in development of these powers.

Dr. Gene Cope and Mrs. Carleton Dean presided at the tea table.

Kent County

The December meeting of the Women's Auxiliary to the Kent County Medical Society was an outstanding one, thanks to the efforts of Mrs. William A. Hyland, who opened her lovely home for the occasion. Mrs. Ward Ferguson presided at a short business meeting, following which a social hour was enjoyed playing bridge and visiting. A delicious buffet supper climaxed a most pleasant evening.

The January meeting was held at the Browning Hotel. Three war information movies of current interest were shown: "Action at Tarawa," "News Parade of 1943" and "Know Your Enemy, Japan." This program was arranged by Mrs. Guy U. De Boer and Mrs. Martin Batts. Mrs. W. J. Butler and Mrs. Wm. A. Hyland represented the Auxiliary at the School of Information at the Presidents and Secretaries Conference of Michigan State Medical Society in Detroit, January 30.

The February meeting was an exceptionally interesting one. Mrs. William L. Rogers, nutrition chairman, presented a radio skit, "Food for Victory." She was assisted by Mrs. Frank M. Burroughs, Mrs. Margaret Anderson, and Miss Jeanne Houghton. They stressed the fact that food is an important weapon in bringing ultimate victory—that we must feed the civilians, the armed forces, the fighting allies and the people freed from Axis domination. The farmer and the Victory gardeners play an important role in the war effort, and we must preserve and conserve their products.

On March 8 Mrs. Martin Batts directed a one-act comedy, "Nominating Nightmares," which was presented by members of the Auxiliary. This comedy was a take-off on medical auxiliaries, and depicted in a very humorous manner all the difficulties which arise in such an organization.

Wayne County

Mrs. T. Grover Amos and Mrs. Charles J. Barone of the Women's Auxiliary of the Wayne County Medical Society presented E. L. Steiner, director of the blood donor service, and Mrs. E. C. Baumgarten, volunteer registered nurse, with a certificate of title to a station wagon for the blood bank. Funds for the purchase of the wagon were raised by the Auxiliary.



*Facts for the patient
inquiring about the*

SAFETY

OF INTERNAL MENSTRUAL PROTECTION

Tampax menstrual tampons are more than merely *adequate* for catamenial protection...they possess a wide margin of safety, particularly on prolonged use.

Careful and extended research by authorities in different parts of the country—involving studies on bacterial flora, hydrogen ion concentration, vaginal mucosal biopsies, glycogen determinations and gross examinations in hundreds of cases—has failed to reveal any untoward results from the regular use of this form of menstrual hygiene.

For instance, one investigator¹ reports, "By exact research in 218 women who wore tampons regularly during their menstruation for one year and over, no production of irritation or discharge, vaginitis or cervicitis was found."

Another² states that, in 110 subjects using tampons throughout each period for a minimum of one year to a maxi-

mum of two years, "there was no evidence of any irritation of the cervix or vagina by the tampon."

A third clinician³ (with a series of 21 subjects) writes that "no evidence was observed of any infection carried by the tampons."

Finally, the general consensus would seem to indicate that intravaginal menstrual protection will not cause blocking of the flow or cramps—rather that "tampons actually acted as a wick to draw away the blood from the cervix."⁴

Thus, Tampax can be soundly recommended to patients of menstruating age—on the basis that "the evidence is conclusive that the tampon method of menstrual hygiene is safe, comfortable and not prejudicial to health."⁴

(1) West. J. Surg., Obst. & Gyn., 51:150, 1943. (2) Am. J. Obst. & Gyn., 46:259, 1943. (3) Clin. Med. & Surg., 46:327, 1939. (4) Med. Rec., 155:316, 1942.

TAMPAX

accepted for advertising by

the Journal of the American Medical Association

**TAMPAX INCORPORATED
PALMER, MASSACHUSETTS**

Please send me a professional supply
of the three absorbencies of Tampax:

NAME _____

ADDRESS _____

CITY _____

CORRESPONDENCE

Mutual Benefit Health and Accident Assn. of Omaha
Omaha, Nebraska

Gentlemen:

Recently we received a letter from the Wayne County Medical Society, 4421 Woodward at Canfield, Detroit, one of our component societies, which contained the following paragraph:

"A. H. Lange, M.D., Chairman of the Insurance Studies Committee of the Wayne County Medical Society, and this office have been telephoned by several members in the last week who report that representatives of the Mutual Benefit Health & Accident Association of Omaha in their solicitations are creating the impression that they have a special group policy approved by the Michigan State Medical Society. The advertisement that appeared in the April issue of your Journal is an essential part of this alleged misrepresentation. Inasmuch as you state that your Council has not approved any particular insurance company or policy but feel this is a prerogative of the local societies, and also, inasmuch as the W.C.M.S. has a special group policy approved by the Council of this organization, written by the Continental Casualty Company of Chicago, the contacts being made by the representatives of the Mutual Benefit Company are leading to considerable confusion and thereby resulting in a waste of very valuable time on the part of busy practitioners in this area.

"We do not wish to give the impression in this letter that we are in any way opposed to the representatives of any insurance company in the world calling upon and attempting to sell the individual members of this Society, but we are interested in stopping if it does exist, any injurious misrepresentation."

This communication from the Wayne County Medical Society was presented to the Executive Committee of the Council of the Michigan State Medical Society at its May 24 meeting, and thoroughly discussed.

The Executive Committee of the Council instructed that a letter be dispatched to you containing the above information from the Wayne County Medical Society, and further stating that the Michigan State Medical Society has not approved the policy of any insurance company, which approval or disapproval is the prerogative of the county medical societies; only the advertising of the Mutual Benefit Health & Accident Association of Omaha has been accepted for the MSMS JOURNAL.

The Executive Committee of the Council would appreciate your taking whatever steps you deem advisable to eliminate any misunderstandings among members of the Wayne County Medical Society that may have resulted due to statements allegedly made by your representatives, either intentionally or otherwise, to the effect that the Michigan State Medical Society has approved your health and accident insurance policy.

We appreciate your coöperation in this matter and your early reply to transmit to the Insurance Studies Committee of the Wayne County Medical Society.

Yours very truly,
L. FERNALD FOSTER, M.D.
Secretary.

June 3, 1944.

608

Dr. L. Fernald Foster, Secretary,
Michigan State Medical Society,
2020 Olds Tower,
Lansing, 8, Michigan.

Dear Doctor:

The fair and courteous way in which you called attention to the situation in Wayne County with reference to some solicitation attributed to representatives of our Association is deeply appreciated, and we assure you of our earnest coöperation toward the end that our representatives may continue their enrollments strictly on the merits of our proposition without creating or leaving any erroneous impression as to approval by the State Society.

We are fortunate in having in Michigan a state manager of the highest ethics and integrity, and so are passing your letter along to Manager E. B. Brink who can be depended on to put back into the proper channels any representative who might have gone too far in his enthusiasm for the product that he has been offering.

Our Association is headed by Doctors of Medicine and our coöperation with the physicians and medical societies all over the country has been so splendid that we do not want anything to occur anywhere which would in any way jeopardize those fine relations which we have enjoyed for so many years.

Yours very truly,

MUTUAL BENEFIT HEALTH & ACCIDENT ASSN.
(Signed) S. C. CARROLL

Vice President

June 6, 1944

To the Medical Profession of Michigan:

Directed by the Army Air Forces, of which it is an auxiliary, the Civil Air Patrol throughout the country, beginning July 1, adds to its duties by undertaking the physical examination of cadets from the age of 15 through 17; the purpose is to determine in advance the state of health of the nation's teen-agers and thereby to advise or assist in correcting ills, so that these youngsters will be able to serve their country on reaching the inductible age of 18.

To accomplish this tremendous task it is necessary to obtain the assistance of all physicians.

Therefore, it is incumbent on me to urge physicians to contact CAP units in their localities so that arrangements may be made for a large part of these examinations. Forms for the examinations are being printed and will be distributed within a month, with full instructions as to the use.

It is also here pointed out that there remain vacancies for medical officers in several squadrons in this state. To fill these posts physicians who find it at all possible to do so are asked to make application for membership to the squadrons most convenient to their locality. For medical officers, as well as many others in Civil Air Patrol, flying experience is not mandatory.

CAPTAIN J. A. NOWICKI, M.D.,
Detroit, Medical Officer, Mich.
Wing 63, C.P.A.

June 1, 1944

JOUR. MSMS

Summer Heat . . .

Phagocytosis . . .

Protein Need . . .

The efficacy of phagocytosis is definitely linked to adequate protein intake. As environmental temperature rises, the diet-percentage of protein apparently must rise proportionately, to maintain phagocytosis at optimum.* Meat is a rich source of proteins, and its proteins are of highest biologic quality, the RIGHT KIND for every bodily need, including phagocyte activity.



The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

* Commenting editorially on the work of Mills and Cottingham (J. Immunol. 47:503 [Dec.] 1943), THE JOURNAL states: "They found that after five and one-half weeks maintenance at 68 F. rats showed a maximum phagocytic activity on diets containing 18 per cent of protein. There was a definite decrease in phagocytic activity with an increase or decrease from this level. In rats maintained at 90°F. the phagocytic optimum diet was 36 per cent of protein. Thus adequate protein intake would seem to be fully as important as adequate vitamin intake to maintain optimal phagocytic activity (resistance to microbic infections). The immunologic optimum protein intake is higher in the tropics than in temperate climates. . . . This demonstration of important variations in phagocytic functions is a pioneer contribution to basic immunologic theory and may have wide clinical implications." (J.A.M.A. 124:1203 [April 22] 1944.)

AMERICAN MEAT INSTITUTE
MAIN OFFICE, CHICAGO...MEMBERS THROUGHOUT THE UNITED STATES

★ COUNTY AND PERSONAL ACTIVITIES ★

It is estimated that 22.7 per cent of the total national income, or \$33.6 billion, was saved in 1943 by the people of the United States.

* * *

"Since Pearl Harbor, a decline of approximately 10 per cent has taken place in the total number of small business establishments in the United States."

—Committee for Economic Development.

* * *

O. W. Mitton, M.D., of East Tawas, G. F. Moore, M.D. of Mt. Clemens, and Russell H. Strange, M.D. of Mt. Pleasant attended the Refraction Clinic and the Postgraduate Course given by Ralph Woods, M.D. at Janesville, Wisconsin, recently.

* * *

To many a war-weary and travel-worn veteran, social security means the opportunity to settle down in a home of his own. Will his plans to meet payments on a home take account of unexpectedly high social insurance deductions from earnings?

* * *

Postal Zone.—Doctor, please send your postal zone to the Record Department of the Michigan State Med-

ical Society, 2020 Olds Tower, Lansing 8, Michigan, to facilitate mailings from the State Society. Many thanks.

* * *

The American Congress of Physical Therapy will hold its 23d Session at the Statler Hotel, Cleveland, Ohio, September 6, 7, 8 and 9. For information and program write the American Congress, 30 North Michigan Avenue, Chicago 2, Illinois.

* * *

The Gratiot-Isabella-Clare Medical Society celebrated its 300th meeting on May 25 with a meeting in St. Louis, Michigan. Three charter members of the Society, organized forty-two years ago, were present: B. C. Hall, M.D. of Pompeii, W. M. Drake, M.D. of Breckenridge, and H. F. Kilborn, M.D. of Ithaca.

* * *

Medical service plans are available in conjunction with Hospital Service plans throughout the states of California, Colorado, Delaware, Massachusetts, Michigan, New Jersey, North Carolina and Pennsylvania. In addition, regional plans operate with headquarters in Buffalo, Utica, and New York City.

"Whirlwind" IMPROVED PRESSURE-SUCTION PUMP

Abundant suction or pressure at the flick of a switch. Efficient controls permit regulation of pressures. A powerful, yet truly portable unit for doctor or hospital. Complete with cord, switch, tubing and air cutoff.

Quiet as a whisper because of efficient muffler-filter. Continuous oiler keeps pump in condition. Automatic ball trap keeps liquids from entering pump.

COMPLETE AS SHOWN

\$39.95

Wocher's

ROLAND RANDOLPH, MGR.
4611 WOODWARD AVENUE
DETROIT
TEMPLE 2-2440



COUNTY AND PERSONAL ACTIVITIES

The Michigan Pathological Society held its regular bi-monthly meeting on May 27, 1944, at Eloise Hospital. The scientific session was devoted to a seminar on "Lesions of the Mouth" and was conducted by Dr. D. A. Kerr of the Department of Pathology, University of Michigan. Forty-seven members and guests were present.

* * *

The Toledo (Ohio) Academy of Medicine plans a Memorial Building as a testimonial to the physicians of Toledo who served with the Armed Forces of the United States in World War I and World War II. An assessment of \$300 per member for a new memorial building, or \$150 per member for remodeling the present home of the Academy of Medicine, is being presented to the membership for decision.

* * *

"The legal profession is going to be next on the list," stated Charles Humphrey of Ironwood, President of the State Bar of Michigan, in addressing the Genesee County Bar Association, May 17, on the subject of "Socialized Medicine." Mr. Humphrey warned that if the Wagner-Murray-Dingell Bill becomes law, "it will be just another short step to socialization of all our national activities."

* * *

Taxes.—The date for final adjustments has been changed. You can now make final adjustments on January 15, 1945, instead of December 15, 1944. This eliminates the guesswork of last year in filing on December 15. Also you may, if you so desire, file your final return on January 15 instead of March 15, 1945. No penalty will be imposed for any underestimate that results from the new law.

* * *

The Baruch Committee on Physical Medicine has appointed a Scientific Advisory Committee of which Frank H. Krusen, M.D., Rochester, Minnesota, is Chairman, and a Committee on War and Postwar Physical Rehabilitation and Reconditioning, of which Dr. Ernest J. Jaqua, of Eugene, Oregon, former President of Scripps College, will be Educational Director.

The Baruch committee is located at 597 Madison Avenue, New York City.

* * *

Societies meeting coincident with the MSMS Annual Session in Grand Rapids:

1. Michigan Pathologic Society—Wednesday, September 27, beginning with the meeting of the Pathology Section at 12:00 noon, Grill Room, Pantlind Hotel, Grand Rapids.
2. Michigan Chapter of the American College of Chest Physicians—Thursday, September 28, Pantlind Hotel, Grand Rapids.

JULY, 1944

HAVE YOU TRIED SPENCER SUPPORT



TO AID
TREATMENT OF
**VISCEROPTOSIS
NEPHROPTOSIS**
with Symptoms?

BREAST PROBLEMS?

Mastitis, nodules, nursing, prenatal, prolapsed atrophic breasts, ptosis, stasis in breast tissues, amputation.

Spencer Abdominal Support, shown open, revealing inner support section, which is adjustable from outside the support.

Sacroiliac Sprain?

Lumbosacral sprain also relieved by a Spencer. Each Spencer is designed individually for the one who is to wear it.

Prenatal or Postpartum Backache?

Patients derive specific benefits and comfort from Spencer prenatal and postpartum supports designed to gently support lower abdomen and rest the back. Backache is relieved—and may be prevented.

Hernia?

Spencers are prescribed to control inoperable hernia and also as a guard against development of hernia from sudden strain. Spencer postoperative supports are widely prescribed.

Ruptured Disc?

Spencer Spinal Supports are designed to provide rigid support when desired—also for postoperative cases.

Spondylarthritis and Sciatica?

Spencers are effective as aid to treatment. Spondylolisthesis, osteoporosis, congenital spinal weakness or deformities are other back conditions for which Spencer Supports are designed.

Back Injuries?

Spencer Spinal Supports are in wide use by orthopedists for fractured vertebrae and other back injuries, kyphosis, lordosis, scoliosis, spinal tuberculosis and malignancy.

SPENCER^{INDIVIDUALLY} DESIGNED Abdominal, Back and Breast Supports

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Please send me booklet, "How Spencer Supports Aid the Doctor's Treatment."

May We
Send You
Booklet?

.....M. D.
Address



● Comb of caponized white leghorn in regressed state.



● Same capon showing increase in size of comb after repeated injections of Virosterone.

ENDO VIROSTERONE

Reg. U. S. Pat. Off.

NATURAL MALE HORMONE

● VIROSTERONE, is biologically standardized by Gallagher-Koch, method in Capon Units. Available in 1, 3 and 5 Capon Units in packages of 12 and 25.

● INDICATIONS: Male Climacteric; Angina Pectoris*

*Literature on Request

THE G. A. INGRAM & COMPANY

4444 Woodward Avenue

Detroit 1, Michigan

"I advertise in those state journals where the doctors read the advertisements," stated one advertiser of the MSMS JOURNAL. Asked how he gauged reader-interest, he replied: "By the number of coupons clipped out of my advertisement and mailed to me by doctors in each particular State."

As a part-owner of the MSMS JOURNAL, your personal interest is served every time you clip an advertiser's coupon.

* * *

Thirty days' notice.—In connection with requests for Emeritus and Retired Membership, the MSMS By-Laws in Chapter I, Section 8, state: "Transfers shall be by election in the House of Delegates. Requests for transfers shall be accompanied by certification by the secretary of the State Society, as to years of practice and years of membership in good standing. The County Society of such members shall make request for certification, in writing, to the Secretary of the State Society thirty days in advance of an annual session."

* * *

"*Strikes* have been so numerous throughout the United States since Pearl Harbor, all of which have involved either directly or indirectly the production of material and supplies sorely needed by the service branches of the Government, that it can readily be assumed that subversive activities are on such a huge scale that they are undermining our constitutional

form of government, the free enterprise system, the right to work, enjoy the unmolested sanctity of our homes, and a suspension of the seizure of property without due process of law."

—HARVEY CAMPBELL, Detroit.

* * *

Too Little and Too Late.—It is obviously necessary to reorganize the American Medical Association to make it more responsive to the wishes and demands of the rank and file membership. There are a great many things that never get done until too late to be of use. Too little and too late has too often been the rule in organized medicine. One striking example is the action taken, or lack of action we should say, in the instance of the material benefit for servicemen foisted upon the profession without warning or knowledge before hand. Maybe nothing could have averted this Federal program but something might have been done to change it into a more suitable form than it now is.—*Bulletin*, Oakland County Medical Society, June, 1944.

* * *

Floyd E. Armstrong, Professor of Economics and Finance, Massachusetts Institute of Technology, Cambridge, has addressed additional numbers of Michigan groups and societies on "What Price Security" as follows:

May 13, Annual Convention of Junior Chamber of

COUNTY AND PERSONAL ACTIVITIES

Commerce, Grand Rapids; May 17, Junior Industrial Club of Lansing, Lansing; May 18, Public Meeting arranged by the Manistee Woman's Auxiliary, Manistee; June 5, Joint Meeting of service clubs of St. Joseph and Benton Harbor, St. Joseph; June 12, public meeting arranged by Rotary Club, Durand; June 13, public meeting arranged by Rotary Club, Marlette; June 20, joint meeting of all service clubs and wives, Kalamazoo; June 22, Rotary Club, Pontiac.

Autumn meetings scheduled include a talk at the Annual Session of the MSMS Woman's Auxiliary, in Grand Rapids, September 28; a public meeting arranged by the St. Clair County Medical Society in Port Huron on October 10.

* * *

"After some figuring I have found the white collar girl is behind the well-known eight-ball. I am a stenographer working six days a week at \$30.00 a week. After my deductions as follows:

20% Income Tax	\$6.00
5% Victory Tax	1.50
3% Social Security90
10% Bonds	3.00
	<hr/>
	\$11.40

I receive the total sum of \$18.60. Of course, I realize the 10 per cent bonds are mine.

"Due to the fact that I have an apartment for my mother and me, I have a cleaning girl one day every two weeks at \$5 and carfare, which leaves my actual salary per week \$18.60, less \$2.60, \$16.00!

"Now, the cleaning girl works six days a week for different parties, thus making \$30 a week, less no tax or other deductions. She pays no income, victory or social security because no one reports her for fear she'll quit. Also her husband works for a nice sum in a defense plant and claims deductions for a married man. This wife has 'no income.'

"Methinks I am one — Dumb Steno."

* * *

Michigan physicians on the Program of the American Medical Association Scientific Assembly, held in Chicago June 12 to 16, included: Frederick A. Collier, M.D., Norman F. Miller, M.D., Reed M. Nesbit, M.D., C. L. Pannabecker, M.D., Thomas Francis, Jr., M.D., Udo J. Wile, M.D., L. E. Himler, M.D., R. W. Waggoner, M.D., H. M. Pollard, M.D. and A. C. Curtis, M.D. of Ann Arbor; J. M. Robb, M.D., Major S. J. Nichamin, M.C., AUS, E. S. Gurdjian, M.D., Major John E. Webster, M.C., AUS, W. E. Stone, M.D., C. D. Selby, M.D., H. P. Doub, M.D., Edward G. Martin, M.D., John G. Mateer, M.D. and Frank W. Hartman, M.D. of Detroit; and Pearl Hendrick, M.D., Grand Rapids.

Michigan men participating in the Scientific Exhibit of the AMA included: George J. Curry, M.D., Flint; C. H. Snyder, M.D., Grand Rapids; R. D. McClure, M.D., C. R. Lam, M.D. and John W. Hirshfield, M.D., Detroit; Max R. Burnell, M.D., Flint; John W. Towey, M.D., Powers; Brock E. Brush, M.D., Detroit; Henry Turkel, M.D. and Frank H. Bethell, M.D., Ann Arbor; S. E. Gould, M.D., Eloise; R. W. Wag-

JULY, 1944

Say you saw it in the Journal of the Michigan State Medical Society

A BORN LEADER- THAT'S JOHNNIE WALKER



Its unrivaled smoothness and distinctive flavour makes Johnnie Walker a leader among scotches.

Popular Johnnie Walker can't be everywhere all the time these days. If occasionally he is "out" when you call... call again.

JOHNNIE WALKER



**BLENDED
SCOTCH WHISKY**

RED LABEL

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Both 86.8 Proof

Canada Dry Ginger Ale, Inc.
New York, N. Y.

Sole Importer

BUY UNITED STATES WAR BONDS AND STAMPS

Ferguson-Droste-Ferguson Sanitarium

Ward S. Ferguson, M. D.

James C. Droste, M. D.

Lynn A. Ferguson, M. D.

PRACTICE LIMITED TO DIAGNOSIS AND TREATMENT OF DISEASES OF THE RECTUM

Sheldon Avenue at Oakes
GRAND RAPIDS, MICHIGAN

Sanitarium Hotel Accommodations

goner, M.D., Ann Arbor; E. S. Gurdjian, M.D., Major John E. Webster, MC, AUS, and D. J. Leithauser, M.D., Detroit.

* * *

Meeting of Michigan Medical Service Membership

The fifth annual meeting of the membership of Michigan Medical Service will be held in the Ballroom of the Pantlind Hotel, Grand Rapids on Tuesday, September 26, 2:00 P.M. The membership is composed of all duly accredited members of the MSMS House of Delegates plus the members of the Board of Directors of Michigan Medical Service.

* * *

Biddle Lecturer of 1944

Preston Bradley, LL.D., D.D., Chicago, has been selected by President C. R. Keyport, M.D., to be the Biddle orator of the Michigan State Medical Society for 1944. Dr. Bradley will speak at the General Assembly of Wednesday, September 27, 8:30 P.M., Ballroom, Pantlind Hotel, Grand Rapids. The public is invited to attend.

* * *

Council and Committee Meetings

1. Preventive Medicine Committee, Statler Hotel, Detroit—May 25
2. Special Committee on Education, Michigan Union, Ann Arbor—June 1
3. Special Committee on EMIC Program, Statler Hotel, Detroit—June 8
4. Special Committee on EMIC Program, State Laboratory, Lansing—June 22

5. Executive Committee of The Council, Olds Hotel, Lansing—June 22

6. The Council, Mackinac Island—July 21-22

* * *

The Doctor's Dispute

It would, of course, be presumptuous for a layman to pass on the merits of claims of doctors of medicine and osteopaths as to their relative efficiency in the treatment and cure of human ills.

But so far as their clash over the application of the osteopaths for permission to practice in our General Hospital is concerned, we have no hesitancy in siding with the members of the medical schools. And not necessarily because we are convinced their ministrations are the more beneficial, but because admission of their rivals would disorganize the service.

As we understand it, the regulars, doctors and nurses, are forbidden by the rules of their profession to collaborate with the newcomers. Their withdrawal, of course, would make the local hospital worthless to the community, or practically so. The city commission should negative any move to disturb the existing routine.

It will be time enough when the war is over and doctors more plentiful to agitate this question and settle it on its merits.

At the same time, it is not edifying to hear representatives of the medics threaten a walkout. Something like the CIO might have been guilty of when it was young and inexperienced.—*Bay City Times*, April 18, 1944.

COUNTY AND PERSONAL ACTIVITIES

What the People of Michigan Think of Medicine

A factual statement showing Medicine's faults and virtues, based on a survey now being made by the Michigan Health Council, will be presented to members of the Michigan State Medical Society at the annual session of 1944.

R. L. Novy, M.D., Detroit, representative of Michigan Medical Service on the Health Council, will be one of the guest speakers. An interpretation of the poll, which will be completed immediately preceding the annual session of the state society, will be given by John F. Hunt, executive of Foote, Cone and Belding, Chicago, which firm is conducting the survey.

This important session will be held in the ball-room of the Pantlind Hotel, Thursday, September 28, 1944, 8:30 P.M.

New MSMS Radio Hour

Beginning August 1, the Public Relations Committee of the State Society will sponsor two radio periods every week over the following Michigan stations:

WXYZ, Detroit
WBCK, Bay City
WJIM, Lansing
WSOO, Sault Ste. Marie
WOOD, Grand Rapids
WELL, Battle Creek
WIBM, Jackson
WHDF, Calumet
WFDF, Flint
WKTZ, Muskegon
WDBC, Escanaba
WDMJ, Marquette

These presentations will be dramatized sequences to depict the public benefits of present-type medical practice and its supplemental facilities (such as voluntary group medical service). The benefits of the time-tried American way of medical care will be contrasted to proposed forms of federal, bureaucratic, compulsory Medicine.

The program has been developed by the Advisory Committee on Radio composed of C. L. Candler, M.D., A. S. Brunk, M.D. and P. L. Ledwidge, M.D. of Detroit, and President C. R. Keyport, M.D. of Grayling, a committee named by Fred R. Reed, M.D., Three Rivers, Chairman of the Public Relations Committee.

Listen to the MSMS Radio Hour—(See page 623). President Keyport would like to know what you think of this new MSMS activity. Send him your comments to Grayling, Michigan.

* * *

U. S. Hires 13,000 More

The number of civilian government employees increased 13,000 during April, bringing the total on April 30 to 2,850,000—the highest since last July, the civil service commission reported today.—*Detroit Times*, June 8, 1944.

JULY, 1944

ORTHOPEDIC & SURGICAL APPLIANCES



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We are completely equipped and solicit your inquiry for these lines as well as for Pharmaceuticals, Chemicals and Supplies, Surgical Instruments and Dressings.

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In Memoriam

DIED IN MILITARY SERVICE

Lewis J. Geerlings of Fremont was born May 25, 1907 in Grand Rapids and was graduated from Rush Medical College in 1932. He served his internship at Presbyterian Hospital of Chicago and completed his work there in 1933. Before locating in Fremont, Doctor Geerlings was engaged in the practice of medicine in Stanton, Lansing, Oklahoma and Shelbyville, Illinois. He enlisted in the Medical Corps immediately after the Japanese attack on Pearl Harbor and reported for active duty on May 16, 1942. He trained at Geiger Field, Washington, for about five months, and was then sent to Randolph Field, Texas, for special training in psychiatry. In March, 1943, he left for North Africa. He was stationed at Pantelleria for several months and was assigned to Sicily following the invasion of the island. For several weeks he was stationed near Mt. Vesuvius in Italy and later returned to Sicily. He was sent to Corsica after a permanent base was established on the island several months ago. He was a flight surgeon and was killed in a plane accident on the Island of Corsica on May 10, 1944.

Frank P. Bohn of Newberry was born in 1866 in Indiana and was graduated from the Medical School of Indiana in 1890. After graduation, he began his medical practice at Seney. He walked 26 miles to treat his first patient. For years he traveled horseback, on snowshoes, by canoe and dog team, to minister to the sick and injured over a vast territory. Doctor Bohn lived in Newberry since 1898. He was elected to Emeritus Membership in the Michigan State Medical Society in 1940. In addition to his practice, he was president of a bank, director of a real estate company and had served three terms in Congress and two terms in the State Senate. During his service in Congress he sponsored a number of measures of particular benefit to Northern Michigan. Doctor Bohn died June 1, 1944.

Ervin D. Brooks of Kalamazoo was born at Dundee in 1854 and was graduated from the University of Michigan Medical School in 1885. Subsequently he studied eye, ear, nose and throat at the College of Chicago and the University of Vienna in 1896. In 1912 he received a law degree from the Chicago Law School. He opened his practice in Flushing where he remained until 1907, when he moved to Kalamazoo. Besides being a leader in his profession, he was interested in many civic affairs. He was elected to Emeritus Membership in the Michigan State Medical Society in 1938. Doctor Brooks died April 29, 1944.

William C. Hawken of Detroit was born in Rochester, November 12, 1901, and was graduated from the Detroit College of Medicine and Surgery in 1928. He was on the staff of Providence Hospital and was associated with Mt. Carmel, St. Mary's and Receiving hospitals. He was Senior Medical Examiner for the board of education and was an instructor in surgery at the Wayne College of Medicine. He died June 7, 1944.

Theodore F. Heavenrich of Port Huron was born in Detroit, May 31, 1874, and was graduated from the

JOUR. MSMS

IN MEMORIAM

Detroit College of Medicine in 1900. He served his internship at Harper Hospital. He then located in Port Huron to begin his practice as a physician and surgeon. During his career he was prominent in county and state medical circles, serving as president of the St. Clair County Medical Society in 1911, chairman of the Port Huron hospital staff and as vice-chairman of the executive board of the Michigan State Medical Society. He served as Councilor of the Seventh District of the Michigan State Medical Society, from June, 1927 to January, 1939. In addition to his work in the medical and surgical field, he spent much of his time in furthering the advancement of the medical profession. He was also chairman of the Port Huron NRA compliance board in 1932 and was chief surgeon of the old Detroit United Railways. He was physician and surgeon for the Port Huron Sulphite & Paper Co. and the Detroit Edison company. Doctor Heavenrich died May 5, 1944.

Harry W. Long of Escanaba was born July 29, 1878, at Frederickton, New Brunswick, and was graduated from Northwestern University Medical School in 1900. After graduation he located with his brother, C. H. Long, M.D., in Escanaba. He organized the Cottage Hospital and conducted that institution for several years. In 1914, Dr. Long went to Austria to take a course in eye, ear, nose and throat under eminent specialists in that country. He was in Austria when World War I broke out. He experienced great difficulty in escaping from Europe, but finally returned and was preparing to engage in practice as a specialist when America entered the war. He took his military training and was commissioned a captain in the Army Medical Corps. He received his honorary discharge June 30, 1919. He then took postgraduate work at Rush Medical College and later opened an office at Gary, Indiana. He returned to Escanaba in 1934 and remained there until the time of his death, May 30, 1944.

Edward J. Lynch of Detroit was borne April 8, 1885,

in Jackson and was graduated from the Saint Louis University College of Medicine in 1913. Two years after graduation he served both as an intern and resident on the staff of Saint John's Hospital, Saint Louis, Missouri, and for two more additional years as resident on the staff of Mount Saint Rose Hospital, Saint Louis, Missouri. During the last World War he served as a first lieutenant in the Army Medical Corps. For a number of years he was in general practice and since 1933 had specialized in proctology. Doctor Lynch died April 18, 1944.

Charles A. Mooney of Ferndale was born June 1, 1889 in Clarion County, Pennsylvania, and was graduated from the University of Michigan Medical School in 1916. For the last twenty years Doctor Mooney has practiced in Ferndale; eight of these he served as city health officer. In World War I, he served overseas as a first lieutenant. He was chairman of the Oakland County Board of the Tuberculosis Sanitarium. Doctor Mooney died May 30, 1944.

Peter Arthur Scheurer of Manchester was born February 5, 1885 at Eureka and was graduated from the Detroit College of Medicine in 1908. Doctor Scheurer was on the staff of Mercy Hospital, Jackson, for more than twenty years. He was president of the Peoples Bank at Manchester and a member of the school board, the village council, and was active in many other civic organizations. He died June 16, 1944.

Clifford Caudy Young was born January 9, 1887 in Manhattan, Kansas, and received a Doctor of Public Health degree at the University of Michigan in 1924. He had served as Director of the Bureau of Laboratories of the Michigan Department of Health since 1919. The state of Michigan lost a brilliant public health officer who brought national recognition to the state when Doctor Young died on June 5, 1944. The Michigan Legislature on June 19, 1944, adopted a resolution to call the State Health Laboratories, "The Dr. C. C. Young Laboratories."

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Penicillin in Surgery

(Continued from Page 588)

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MICHIGAN STATE BOARD OF REGISTRATION IN MEDICINE

The dates for the coming examinations of the Michigan State Board of Registration in Medicine are as follows:

Ann Arbor—Monday, Tuesday, Wednesday, July 24, 25, and 26, 1944.

Detroit—Monday, Tuesday, Wednesday, September 25, 26, and 27, 1944.

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Acknowledgment of all books received will be made in this column and this will be deemed by us as a full compensation of those sending them. A selection will be made for review, as expedient.

FEMALE ENDOCRINOLOGY. By Jacob Hoffman, A.B., M.D., Demonstrator in Gynecology, Jefferson Medical College; Pathologist in Gynecology, Jefferson Hospital; Formerly Research Fellow in Endocrinology and Director of the Endocrine Clinic, Gynecological Department, Jefferson Hospital, Philadelphia. 788 pages with 180 illustrations, including some in colors. Philadelphia and London: W. B. Saunders Company, 1944. Price \$10.00

Doctor Hoffman has given us a real textbook of endocrinology, dealing with every phase of the subject and pointing out the relationship to gland and life function, sex characteristics, nutrition and weight. There are twenty-two chapters on the physiology of the many organs and functions, and the endocrine role in these functions such as the corpus luteum, the follicle, the "safe period," menstruation, uterine motility, and the placenta. The physiology of the breast, testes, anterior hypophysis, the posterior hypophysis, the thyroid gland, the suprarenals, et cetera is fully presented. The second part of the book discusses adolescence, the menorrhoeas, sterility, spontaneous habitual abortion, the climacteric, obesity, endocrinopathies, et cetera. The third part is devoted to laboratory aids, procedures, et cetera.

This book is well prepared, clearly and interestingly written, and should be a great aid to the practitioner in the field.

PRACTICAL MALARIA CONTROL. A handbook for Field-Workers. By Carl E. M. Gunther, M.D., B.S., D.T.M. (Sydney); Field Medical Officer, Bulolo Gold Dredging Limited, Territory of New Guinea. At present with the Australian Medical Corps. New York: Philosophical Library, 1944. Price \$2.50.

A very practical, small handbook giving the facts and methods of malaria control, using every proposed plan from the elimination of the vectors to the control of the patients. Plans that have been found useful are given. This book is of especial use to us in Michigan just now, because malaria is again one of the diseases with which we must reckon. Treatment is also outlined, and the complications given.

SULFONAMIDE THERAPY IN MEDICAL PRACTICE. By Frederick C. Smith, M.D., M.Sc., (Med.) F.A.P.S. Editor of Philadelphia Medicine, the official organ of the Philadelphia County Medical Society, Editor, the Medical World, Lieut. Col., Medical Reserve, U. S. Army. Foreword by George Morris Piersol, B.S., M.D., Professor of Medicine, Graduate School of Medicine, of the University of Pennsylvania, Illustrated. Philadelphia: F. A. Davis Company, 1944. Price \$5.00.

The sulfonamides have been one of the most important advances in the practice of medicine of the present century. There are many of them and each one has different uses. This book is timely. It gives the various drugs, their structural forms, and their uses. The diseases that respond to sulfonamide treatment are described, with the outline of treatment, dosage, precautions. Case reports are given. The uses in surgery, the various methods of administration and tabulations of results. This book puts in compact and usable form the world of material that has developed in the few years of this treatment. It will be valuable on our reading desks.

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ELIMINATION DIETS AND PATIENTS' ALLERGIES. A Handbook of Allergy. By Albert H. Rowe, M.D., Lecturer in Medicine, University of California Medical School, Second Edition, Thoroughly Revised. Philadelphia: Lea & Febiger, 1944. Price \$3.50.

Elimination diets for the diagnosis and treatment of Allergies due to foods have been used for many years, and with great success in those cases which did not respond to skin tests, scratch test, et cetera. The theory of the diets is well given by the student who first suggested them. The relations of the various foods, their classification and the reasons for some puzzling allergic facts are given. Sample diets are given for the various types of conditions, and patients. The tests and studies in diagnosing allergy are given, with reasons and methods. The dietary treatment is especially interesting. To one doing allergy in any of its applications this book is essential.

THE ART AND SCIENCE OF NUTRITION. By Estelle E. Hawley, Ph.D., and Grace Carden, B.S., The University of Rochester School of Medicine and Dentistry, Strong Memorial and Rochester Municipal Hospitals. With 139 illustrations including 11 in color. St. Louis: The C. V. Mosby Company, 1944. Price \$3.75.

The history of nutrition, the deficiencies, and studies in metabolism form the foundation of this book of 668 pages. The food elements, their values and place in body building is the prime theme. Weight control, diet in the various diseases, infant feeding occupy forty-eight chapters. The balance is devoted to choice, preparation and serving of foods, an outline of twenty teaching lessons. The appendix is a hundred and twenty pages of facts and various information of distinct

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value to the teacher, the dietitian, and the doctor who must prescribe diets for his patients. The food habits of different classes of people are given as a guide to prescribing. Hundreds of foods are tabulated as to food composition.

The book should be on the desk of dietitians and doctors.

VIRUS DISEASES IN MAN, ANIMAL AND PLANT. By Gustav Seiffert. A survey and reports covering major research work done during the last decade. New York: Philosophical Library, 1944. Price \$5.00.

This volume is published at the recommendation of the National Research Council, and gives a survey of the present status of virus investigation with special reference to the most recent literature, and especially the foreign literature. "By the term 'virus' are designated substances that can engender definite contagious diseases whose nature and character are not yet clearly known."

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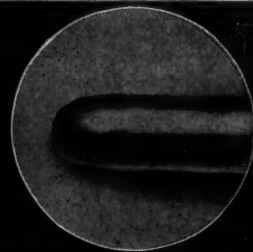
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A MANUAL OF PHYSICAL THERAPY. By Richard Kovacs, M.D., Professor of Physical Therapy, New York Polytechnic Medical School and Hospital; Attending Physical Therapist Manhattan State, Harlem Valley State, Columbus and West Side Hospitals, New York. Third edition, thoroughly revised, with 118 engravings. Philadelphia: Lea & Febiger, 1944. Price \$3.25.

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THE AMERICAN ILLUSTRATED MEDICAL DICTIONARY. By W. A. Newman Dorland, A.M., M.D., F.A.C.S., Lieut.-Colonel, M.R.C., U. S. Army; Member of the Committee on Nomenclature and Classification of Diseases of the American Medical Association; Editor of "American Pocket Medical Dictionary." With the collaboration of E. C. L. Miller, M.D., Medical College of Virginia. Twentieth Edition, Revised and Enlarged. 1668 pages with 885 illustrations, including 240 portraits. Flexible and Stiff Binding. Philadelphia and London: W. B. Saunders Company, 1944. Plain \$7.00; Thumb-Indexed \$7.50.

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JULY, 1944

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AUGUST, 1944

Say you saw it in the Journal of the Michigan State Medical Society

625

THE JOURNAL

OF THE

Michigan State Medical Society

Vol. 43

AUGUST, 1944

No. 8

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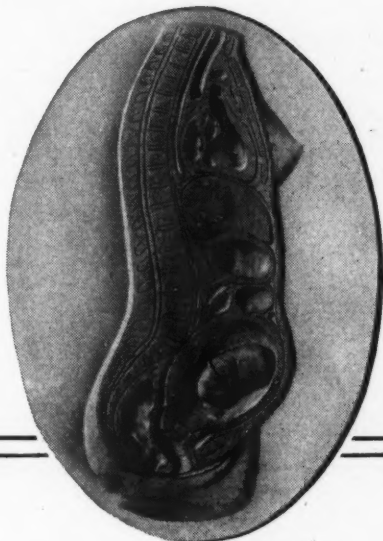
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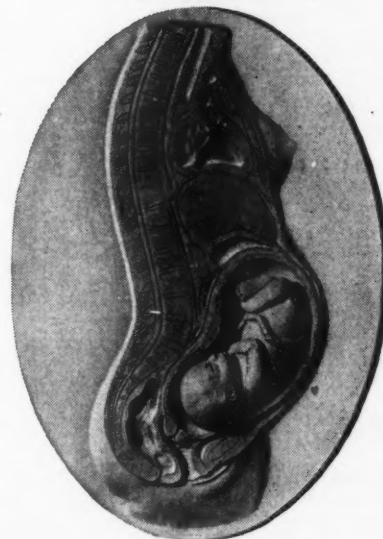
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ANATOMY OF PREGNANCY

*This series of life-size sculptured models
was executed for S. H. Camp & Company
by Charlotte S. Holt*



4 Lunar Months—Abdominal protrusion beginning. Uterus becomes abdominal organ. Fundus 4 cm. below umbilicus. Approximate time of quickening. Normal visceral relationship. No appreciable change in body mechanics.



7 Lunar Months—Beginning tension on recti. Uterine fundus 5.5 cm. above umbilicus. Cephalic presentation determined. Visceral displacement (upward and lateral). Lumbar and dorsal curves increased. Relaxation of sacro-iliac and pubic joints.



10 Lunar Months—Overdistension of recti and diastasis are obvious. Fetus and placenta fully developed. Head engaging (L.O.P.). Marked visceral displacement (upward and lateral). Marked lumbar lordosis "pride of pregnancy." Relaxation of pelvic joints.

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when apathy prolongs convalescence

Many convalescent patients, faced with the "drab succession of dreary days", may develop a reactive depression which can markedly retard normal recovery.

This depression may manifest itself in symptoms of apathy, hopelessness or despondency, psychomotor retardation and subjective weakness.

Obviously, the physician should guard against undue stimulation. But when, in his judgment, a convalescent patient will

benefit by a sense of increased energy, mental alertness and capacity for work, the administration of Benzedrine Sulfate Tablets will often accomplish the desired result.

BENZEDRINE SULFATE TABLETS

(racemic amphetamine sulfate)



As with any potent therapeutic agent, Benzedrine Sulfate should be administered under the supervision of the physician. Indications and contraindications are set forth in N.N.R.

SMITH, KLINE & FRENCH LABORATORIES • PHILADELPHIA, PA.

Why PENICILLIN-C.S.C.

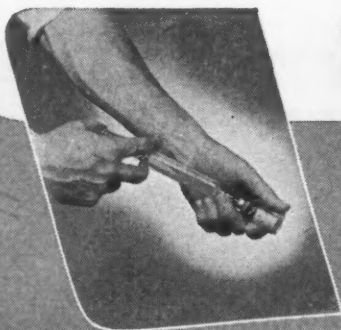
Penicillin-C.S.C.—available as penicillin calcium as well as penicillin sodium—is packaged only in rubber-stoppered serum-type vials containing 100,000 Oxford Units. The vials are used in preference to sealed ampuls because they make for greater convenience in storing the solution and because they lessen the danger of contamination after the solution is made.

Only vials of 100,000 units are offered at present because experience designates them as the most advantageous size. If there IS a factor in therapy which may undermine or lessen the remarkable therapeutic efficacy of penicillin, it may be underdosage. Even if ther-

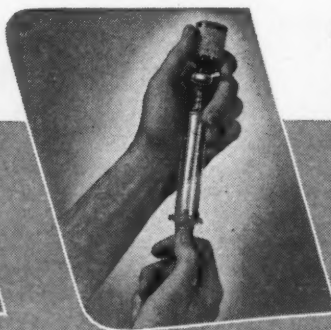
apy is instituted late in the course of the disease, penicillin in many instances will prove effective if adequately high dosage is used for the proper length of time.

In the conditions so far explored and reported, effective dosage in some instances will be less than 100,000 units per day; in many instances it may have to be several times this amount. Hence in a large percentage of cases the Penicillin-C.S.C. vial of 100,000 units will prove most advantageous.

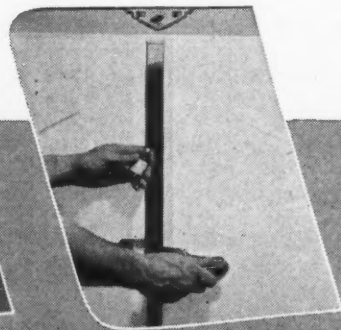
The convenience of the vial will be readily appreciated. After removal of the tear-off portion of the aluminum seal, sterilize the exposed surface of the rubber stopper



For the usual concentration (5000 Oxford Units per cc.) inject 20 cc. of physiologic salt solution into the vial in the usual aseptic procedure.



Invert the vial and syringe (with needle in vial), and withdraw the amount of penicillin solution required for the first injection.



Store vial with remainder of solution in refrigerator. Solution is ready for subsequent injections during the next 24 hours.

**IS SUPPLIED ONLY IN
100,000 OXFORD UNIT VIALS**

in the customary manner, inject into the vial 20 cc. of pyrogen-free, sterile physiologic salt solution; without removing the needle invert vial and withdraw as many cc. of this 5000 units per cc. solution for the injection that is to be made immediately; store the vial with its remaining solution in the refrigerator—it is ready for use when the next injection is to be made.

The concentration withdrawn from the vial is 5000 units per cc. If

a lower concentration is desired, modification is easily accomplished.

If you have not as yet received a copy of the "Penicillin-C.S.C. Therapeutic Reference Table," showing dosages, modes of administration, and duration of treatment required in the various infections in which penicillin is indicated, write for a complimentary copy now. You will find it a valuable aid in familiarizing yourself with penicillin therapy.

**PHARMACEUTICAL DIVISION
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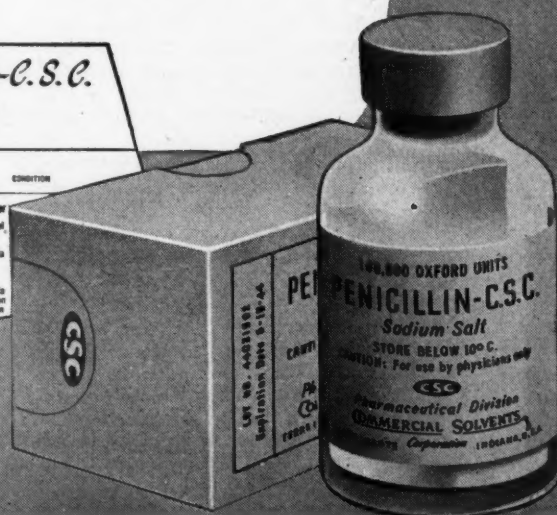
17 East 42nd Street
New York 17, N. Y.

Therapeutic Reference Table . . . Penicillin-C. S. C.

CONDITIONS IN WHICH PENICILLIN IS THE BEST
THERAPEUTIC AGENT AVAILABLE

CONDITION	MODE OF ADMINISTRATION ¹	DOSE ²	DURATION AND COLLATERAL THERAPY	CONTRAINDICATION
1. All streptococcal infections with and without bacteremia:				
• Acute Otitis Media	Intramuscular or Intravenous and Local	10,000 to 15,000 O.U. every 4 hours 250 to 500 O.U. per cc. NaCl solution	7 days or less; debridement and surgery as required	• Col • Ma
• Chronic Otitis Media	Intramuscular or Intravenous and Local	10,000 O.U. every 4 hours 250 to 500 O.U. per cc. NaCl solution	According to response; debridement and surgery as required	• Ma • No • Ca
• Arteriovenous Thromboses	Intramuscular or Intravenous	10,000 to 15,000 O.U. every 4 hours		

A page of the "Penicillin-C.S.C. Therapeutic Reference Table", showing recommended dosages and modes of administration; a copy is yours for the asking.



★ POLITICAL MEDICINE ★

WAGNER-MURRAY-DINGELL OUTDONE

An initiative petition for an amendment to the Constitution of the State of Michigan has been filed as of June 16, 1944. Following are a few quotations from the petition. They will give an idea of the scope of the measure. *It could pass.*

PREAMBLE: "To create a Social Insurance Commission, to provide for social insurance benefits and contributions, and to empower the legislature to increase such contributions and to extend grants to agencies of the State and its political subdivisions for projects and purposes that promote the public welfare."

Section 23. "Whereas economic insecurity due to the interruption or loss of earning power, the lack of opportunity, or loss of ability to be productive, the denial of the right to live under favorable economic conditions in a wholesome environment are detrimental to the welfare of the people, it is hereby declared to be the policy of the State of Michigan that social insurance shall be provided for the people of the State in the proper exercise of the police power of the State. The elected officials of the State shall memorialize Congress in behalf of the people of the State for the establishment of a national insurance system."

"The Governor shall appoint a Social Insurance Commission consisting of one Commissioner . . . (and) a Social Insurance Council consisting of nine members, three members to be selected upon the recommendations of bona fide labor organizations of the State, three members to represent the employers of the State, and three members to represent the public. . . ."

"The following departments of the Social Insurance Commission are hereby created: The Department of Health Insurance, the Department of Employment Security, the Department of Disability Compensation, the Department of Workmen's Compensation, and the Department of Public Grants."

"The salary of the Commissioner shall be \$10,000.00 per year."

"Each employer . . . shall pay contributions (in addition to the contributions paid into the Unemployment Compensation Fund), equal to one and one-half per cent of remuneration for employment." (*No exemptions.* Editor.)

"Each person shall pay contributions on net income, as defined by the income tax statute of the United States, at the rate of one per cent on the first five thousand dollars, two per cent on more than five thousand dollars, but not exceeding twenty thousand dollars, and three per cent on more than twenty thousand dollars."

"Increases in the rate of contributions to the Social Insurance Fund may be provided by statute without any limitation."

"The Governor shall appoint a Health Insurance Council of twenty members, ten of whom shall be selected from a preferred list after polling the medical practitioners of the State who register for service with the Health Insurance Department, and ten of whom shall be selected to represent the public from persons who have expert knowledge of or who have had training in public health, health insurance or social insurance."

"All persons who have their normal place of residence in the State shall be qualified to receive health insurance benefits conferred by this section for themselves and any children for whom they have for the time being the care and control. . . . the benefits conferred by this section on qualified persons shall be such as to provide for the prevention of disease, and for the appli-

cation of all necessary diagnostic and curative procedures and treatment, and for periodic physical examination. For the purposes of this section the health benefits shall be administered under the following heads, namely. (a) medical, surgical, and obstetrical benefits, (b) dental benefits, (c) pharmaceutical benefits, (d) hospital benefits, and (e) nursing benefits."

"The benefits referred to . . . shall include such special and technical procedures and services and the furnishing of appliances as may be deemed necessary to make effective the said benefits in the case of any qualified person. For the purpose of administering medical, surgical, and obstetrical benefit, the Director of Health Insurance shall, . . . make arrangements therefor with practitioners in medicine, surgery, and obstetrics who are qualified, duly licensed, and in good standing in the State, including specialists and consultants in medical, surgical, and obstetrical diagnosis, treatment, and procedures."

"The regulations and arrangements of aforesaid shall be such as to secure that qualified persons shall, subject to the provisions of this section, receive from medical practitioners with whom arrangements are so made all such adequate measures for the prevention of disease, and all such proper, necessary, and adequate medical, surgical, and obstetrical treatment, attendance, auxiliary service, laboratory service, and advice as may be prescribed. The regulations and arrangements aforesaid for laboratory services shall include chemical, bacteriological, pathological, diagnostic, and treatment x-ray, and related laboratory service, and physiotherapy, and special appliances prescribed by a practitioner, and eye glasses prescribed by a legally qualified practitioner. Arrangements with medical practitioners made under the provisions of this section may include arrangements with approved clinics or groups of practitioners practicing in coöperation."

"For the purpose of administering hospital benefits, the Director of Health Insurance shall, in accordance with regulations made hereunder, make arrangements for all necessary treatment of qualified persons in hospitals (including convalescent homes). The regulations and arrangements as aforesaid shall be made only with hospitals known as: (a) Non-profit, voluntary hospitals, (b) Municipal hospitals, (c) County hospitals, (d) State hospitals, (e) University hospitals."

"For the purpose of administering nursing benefit, the Director of Health Insurance shall, in accordance with regulations made hereunder, make arrangements for providing necessary nursing services for qualified persons, and for the effective and economic administration of such services."

"The State, through the State Accident Fund as provided for by statute, shall have the sole and exclusive right to insure workmen's compensation risks and shall collect premiums from all employers of the state for the payment of Workmen's Compensation as may be prescribed by statute."

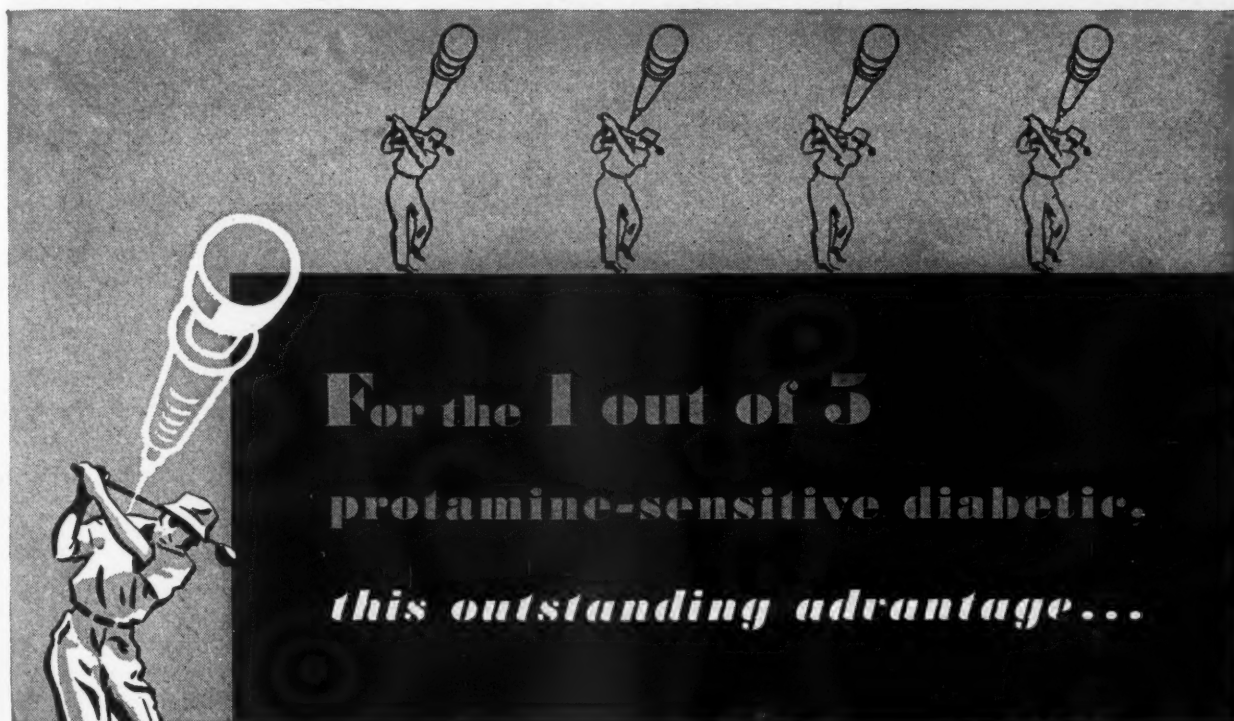
"The legislature shall have the power to pledge the credit of the State for the projects and purposes provided in this section."

(The petition in full covers ten closely typed pages.)

TRANSFER OF HEALTH FUNCTIONS OF DEPARTMENT OF LABOR TO U.S.P.H.S.

Representative Miller of Nebraska has introduced a bill, H.R. 4663, to transfer to the Federal Security Administrator and the Public Health Service, respec-

(Continued on Page 634)



For the 1 out of 5
protamine-sensitive diabetic,
this outstanding advantage...

Recent studies^{1,2} of allergic reactions to various ingredients of insulin preparations demonstrate that approximately one out of five patients experiences skin reactions after intradermal injection of protamine. In the same study only two out of 81 diabetic patients exhibited sensitivity following the intradermal injection of globin.

Bauman,^{1,3} and Duncan,⁴ as well as others, have reported that patients who suffered from severe skin reactions following the use of protamine zinc insulin obtained immediate relief upon changing to globin insulin with zinc.

WITH 'WELLCOME' GLOBIN INSULIN WITH ZINC, these other advantages:

A single injection daily of 'Wellcome' Globin Insulin with Zinc will control many moderately severe and severe cases of diabetes, helping to reconcile patients who resent more frequent injections. Timed to achieve morning onset of action and then maximum effectiveness during the afternoon, 'Wellcome' Globin Insulin with Zinc provides control during peak eating and working hours. Diminishing action after 16 hours allays the dread of "night shock".



'Wellcome' Globin Insulin with Zinc, a new advance in insulin therapy, is a clear solution permitting a more uniform dosage. It was developed in the Wellcome Research Laboratories, Tuckahoe, New York. U. S. Pat. No. 2,161,198. Available in vials of 10 cc., 80 units in 1 cc.

'Wellcome' Trademark Reg.

(1) Page, R. C., and Bauman, L.: J.A.M.A. 124:704 (March 11) 1944. • (2) Bauman, L.: Bull. N. E. Med. Cen. V:17-21 (Feb.) 1943. • (3) Bauman, L.: Am. J. Med. Sc. 198:475 (Oct.) 1939, *ibid.* 200:299, 1940. • (4) Duncan, G. G., Diseases of Metabolism, Phila., Saunders Co., 1942, p. 782.

'WELLCOME' GLOBIN INSULIN WITH ZINC

Literature on request



(Continued from Page 632)

tively, the functions of the Secretary of Labor and the Children's Bureau of the Department of Labor with respect to health. The bill is pending in the House Committee on Expenditures in the Executive Departments.

Section 1 of the bill provides that (a) all functions of the Secretary of Labor with respect to health, including the health phases of industrial hygiene, and including all functions of the Secretary of Labor under parts 1 and 2 of title 5 of the Social Security Act, as amended, are to be transferred to and vested in the Federal Security Administrator; and (b) that all functions of the Children's Bureau of the Department of Labor with respect to health are to be transferred to and vested in the Surgeon General of the Public Health Service.

COMMISSIONS FOR MALE NURSES

H.R. 4760, introduced by Representative Lane, Massachusetts, and pending in the House Committee on Military Affairs, proposes to grant temporary commissioned rank to certain male nurses serving in the armed forces.

This bill provides that any member of the land or naval forces of the United States who is or has been a registered male nurse and who is performing duties as a nurse comparable to the duties performed by members of the Army Nurse Corps (female) or the Navy Nurse Corps (female) shall be appointed by the Secretary of War or the Secretary of the Navy to the relative rank of second lieutenant in the Army or ensign in the Navy, as the case may be, and will receive the same pay and allowances and have the same authority as a female nurse of such relative rank.

SEEING-EYE DOGS FOR VETERANS

The President, on May 24, approved H.R. 4519, a bill authorizing an appropriation of \$1,000,000 to enable the Administrator of Veterans' Affairs to provide seeing-eye or guide dogs trained for the aid of blind veterans who are entitled to disability compensation under laws administered by the Veterans' Administrator and to provide such veterans with mechanical electronic equipment for aiding them in overcoming the handicaps of blindness. All necessary travel expenses to and from their homes and incurred in becoming adjusted to seeing-eye or guide dogs will be paid from this appropriation.

THE BLIND AND DEAF

Brig.-Gen. Charles C. Hillman, writing in *The Journal of the American Medical Association*, squelches two rumors about soldier casualties.

One is that there is a lot of blindness resulting from wounds.

The other is that thousands of men will become deaf as a result of bomb blasts or the pounding given ear drums by airplane motors.

It isn't true.

In fact, the truth of the matter is almost unbe-

lievably the opposite. As of January, 1944, there were ninety-nine veterans with varying degrees of blindness, and only seventeen* of these were totally blind. As to deafness, the general says that the Army anticipates no widespread problem.

These assurances should do much to relieve over-anxiety felt by the kin and friends of servicemen. Rumor mongering can best be answered by the facts.

WAR MEDICINE

ARMY SURGEON GENERAL REPORTS FALLING DEATH RATE FROM DISEASE AND WOUNDS

Washington, D. C.—Today's American soldier is the healthiest ever to take the field against the nation's enemies, Major General Norman T. Kirk, Army Surgeon General, maintains.

The rigid screening process by which both civilian and military doctors have weeded out the physically and emotionally unfit is largely responsible, he said, in a recent nationwide broadcast of "The Doctor Fights."

In previous wars, the general reported, pneumonia has been responsible for many deaths but during the winter of 1943 something under 1 per cent of cases of pneumonia in the United States armed forces died of that disease."

"Meningitis, which fifty years ago, had a death rate approximating 80 per cent and which, twenty-five years ago, had been lowered to a death rate of 40 per cent, has today in our armed forces a death rate approximating 5 per cent," he continued. "In one great military installation there have been reported seventy-six consecutive cases of meningitis without a single death."

These figures, Gen. Kirk added, can be applied to most of the common diseases that affect mankind, particularly under military conditions.

"Never before has an army more physically fit than this one taken the field against our nation's enemies," he declared.

The low death rate, he continued, was a tribute not only to physicians but "particularly also the magnificent organization for medical research which is carried on during the war period."

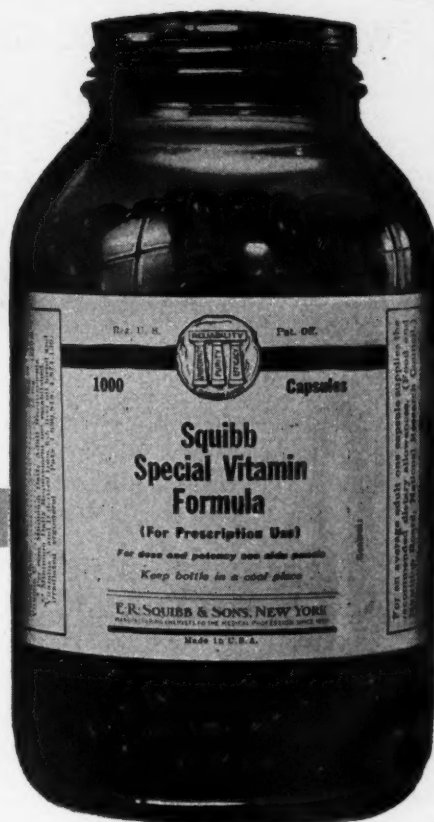
"This research," General Kirk said, "has been reflected in the exceedingly low death rates from wounds of all men not killed outright in the use of such remarkable products as blood plasma, the sulfonamide drugs, penicillin and in the preventive measures for the control of measles, meningitis, typhus and many tropical diseases."

CONTACT DERMATITIS FROM PENICILLIN

What is apparently the first case to be reported of contact dermatitis (inflammation of the skin) from penicillin is described in *The Journal of the American Medical Association* for July 29 by Major H. D. Pyle, MC, AUS, and Herbert Rattner, M.D., Chicago.

*A recent report gives seventy-three blind.

Special Vitamin Formula *Capsules*



A convenient means of providing in *one capsule* the daily Recommended Dietary Allowances of vitamins as adopted by the Food and Nutrition Board, National Research Council.

Note the formula:

Each Special Vitamin Formula Capsule Squibb contains:

Vitamin A	5000 U.S.P. units
Vitamin D	800 U.S.P. units
Thiamine Hydrochloride	2 mg.
Riboflavin	3 mg.
Niacinamide	20 mg.
Ascorbic Acid	75 mg.

Sold to druggists in bulk—to be prescribed in quantities as needed. Low cost to patients.

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DIET SUPPLEMENTATION . . .
CONVALESCENCE . . . MULTI-
PLE VITAMIN DEFICIENCIES

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NEW MOTION PICTURE: Modern Nutrition—A Clinical Symposium—1650 ft. Kodachrome and Sound—16 mm. Loaned gratis to Medical Societies. Write for details.

HEAR "WHAT THE PEOPLE OF MICHIGAN THINK OF MEDICINE"

GENERAL ASSEMBLY, THURSDAY, SEPTEMBER 28, 1944, 8:30 P.M.

BALLROOM, PANTLIND HOTEL, GRAND RAPIDS

A factual statement showing Medicine's virtues and faults, based on the survey made by the Michigan Health Council, will be presented by R. L. Novy, M.D., Detroit, President, Michigan Medical Service, and John F. Hunt, Chicago, Director of the survey.

» → **PREMIER RELEASE OF THE FACTS** ← «

Members of the Michigan State Medical Society are urged to attend this meeting and hear the results, published for the first time, of this important Michigan poll.

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Shepard, Lyle C.....Glendale, Calif.

Berrien County

Anderson, H. B.....Watervliet

Lawton, C. V.....Benton Harbor

Gregory, James.....Berrien Center

Kok, Harry.....Benton Harbor

Cass County

Cunningham, E. M.....Cassopolis

Houghton-Baraga-Keweenaw Counties

Murphy, Percy J.....Ahmeek

Kent County

Browning, E. S.....Grand Rapids

Currier, Fred P.....Grand Rapids

DuBois, W. J.....Grand Rapids

Krupp, Christian G.....Grand Rapids

Slemons, C. C.....Grand Rapids

Lenawee County

Blanden, M. R.....Tecumseh

Marquette-Alger Counties

Davis, James H.....Long Beach, Calif.

St. Joseph County

Fortner, R. J.....Three Rivers

Wayne County

Albrecht, H. F.....Detroit

Barnes, Donald J.....Detroit

Barnett, S. E.....Detroit

Baumann, Walter L.....Detroit

Bennett, Wm. Edw.....Detroit

Boland, John R.....Detroit

Breitenbecher, Edw. R.....Detroit

Briede, Paul C.....Detroit

Cameron, A. H.....Wyandotte

Chostner, G. C.....Detroit

Clapper, Muir.....Detroit

Cowen, Robert L.....Detroit

Donovan, John D.....Dearborn

Dunlap, Samson F.....Detroit

Dickson, Elias L.....Detroit

Eakins, Frederick J.....Dearborn

Erman, Joseph M.....Detroit

Freeman, Benjamin F.....Detroit

Fulgenzi, Andrew A.....Detroit

Fowler, Melvin E.....Detroit

Hall, James A. J.....Detroit

Holcomb, Clayton P.....Detroit

Hughes, A. A.....Detroit

Hunter, Basil H.....Detroit

Hendry, H. W.....Detroit

Jarzembowski Francis B.....Detroit

Kennedy, Wm. Y.....Detroit

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Morin, John B.....Detroit

Norton, Arthur B.....Detroit

Pfeiffer, Rudolph L.....Detroit

Piper, Ralph R.....Detroit

Pittman, J. E.....Detroit

Portnoy, Harry.....Detroit

Prendergast, John J.....Detroit

Reberdy, George J.....Detroit

Schillinger, Harold K.....Dearborn

Scruton, Foster D.....Detroit

Sellers, Charles.....Detroit

Sokolov, Raymond A.....Detroit

Stein, James R.....Ferndale

Syphax, Charles S., Jr.....Detroit

Weisberg, A. Allen.....Detroit

Wickowski, Albin.....Detroit

Wood, George P.....Detroit

Harold R. Larkins, Vice President and General Manager of the Cummins Optical Company announces the removal of the company's offices to the Fourth Floor of the Kales Building, 72 W. Adams Avenue, Detroit.

The change was made to provide more modern and adequate quarters in which to serve physicians and their patients. A cordial invitation is extended to MSMS

members by Mr. Larkins to visit the new headquarters in the Kales Building.

It is estimated that 22.7 per cent of the total national income, or \$33.6 billion, was saved in 1943 by the people of the United States.

"...information on nutrition or other health subjects
should be obtained from the medical
profession . . ."

WATSON, E. R.: SYMPOSIUM ON NUTRITION,
J. MED. ASSN. GEORGIA, 32:326 (Oct.) 1943



The above truism applies with particular emphasis to
the early recognition and treatment of vitamin defi-
ciency conditions.

Therefore, cooperating fully with the clinician,
White Laboratories steadfastly continues to promote
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PRESCRIPTION



... may I suggest you
buy more
U. S. War Bonds today?

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since 1872



Distilled in peace time and Bottled in Bond
under the supervision of the U. S. Government.

Kentucky Straight Bourbon Whiskey, Bottled in Bond, 100 Proof, Bernheim Distilling Co., Inc., Louisville, Kentucky.

Control Summer Diarrhea

WITHOUT CONSTIPATING EFFECT...

with...



DOSAGE:

At Onset: Teaspoonful every hour until normal evacuation with proper stool consistency is restored.

Follow with: Teaspoonful before meals and at bedtime, reduce as indicated.

Zymenol provides a twofold natural approach to the two basic problems of Common Diarrhea;

NORMAL INTESTINAL CONTENT REESTABLISHED
... through BREWERS YEAST ENZYMATIC ACTION*

NORMAL INTESTINAL MOTILITY RESTORED
... with COMPLETE NATURAL VITAMIN B COMPLEX*

This twofold natural therapy assures normal bowel function without constipating astringents and absorptives, artificial bulkage or catharsis.

Write For FREE Clinical Size

*Zymenol contains Pure Aqueous Brewers Yeast (no live cells)



with Confidence

Through all the years, the name Koromex has always stood for dependability. Koromex Jelly today has attained its highest spermicidal effectiveness. Koromex Cream (also known as H-R Emulsion Cream) is equally effective, and is offered as an aesthetic alternative to meet the physiological variants. Prescribe Koromex with confidence. Write for literature.

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Reduce the load...in congestive heart failure

More efficient heart muscle function is permitted when the cardiac burden of the decompensated heart is decreased. The promotion of diuresis is

an important factor in breaking the vicious circle of congestion, edema and the resultant increased circulatory resistance.

SEARLE AMINOPHYLLIN*

produces a gratifying increase in glomerular filtration without appreciable increase in tubular reabsorption. In appropriate dosage its therapeutic action is equally effective, whether given orally or parenterally. This permits the administration of Searle Aminophyllin both in acute emergencies and in chronic congestive heart failure.

INDICATIONS: Bronchial Asthma • Paroxysmal Dyspnea • Aid in Preventing Anginal Attacks • Cheyne-Stokes Respiration • Selected Cardiac Cases

In all usual dosage forms.



G.D. SEARLE & CO.

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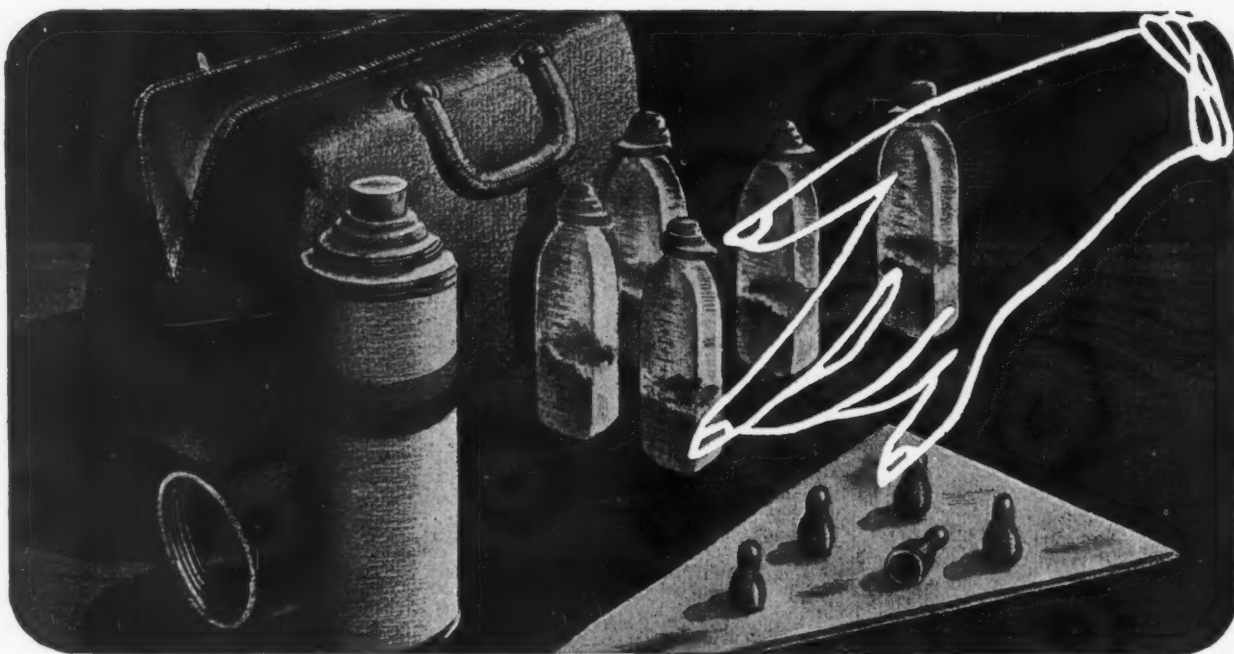
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*Contains at least 80% anhydrous theophyllin.

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RESEARCH IN THE SERVICE OF MEDICINE



SAFE, CONVENIENT, when mother and baby must travel

The mother has only to measure out and place in dry, sterile feeding bottles, the prescribed amount of Similac powder for each individual feeding. The bottles containing the measured Similac powder are then capped, and can be conveniently carried, along with a thermos bottle of boiled water cooled to about blood heat. At feeding time it is necessary only to pour into one of the bottles containing the measured Similac powder, the prescribed amount of water, then shake until the Similac is dissolved, place a nipple on the bottle, and feed.



A powdered, modified milk product especially prepared for infant feeding, made from tuberculin tested cow's milk (casein modified) from which part of the butter fat is removed and to which has been added lactose, olive oil, cocoanut oil, corn oil and fish liver oil concentrate.

SIMILAC

Similar to breast milk

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PENICILLIN

PARKE, DAVIS & COMPANY

When Parke, Davis & Co. began the commercial production of Penicillin in the summer of 1943, the world-wide output of this precious material was almost negligible. Today Penicillin has become a standard therapeutic agent—supplied in quantities needed for the Allied armed forces and for use in research and treatment of selected cases, and now increasingly available for use in civilian practice. Parke-Davis Penicillin is packaged in rubber-diaphragm-capped vials containing 100,000 Oxford units. Instructions for clinical use of Penicillin are available upon request.

PARKE, DAVIS & COMPANY, DETROIT 32, MICHIGAN

AUGUST, 1944

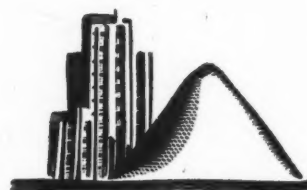
Say you saw it in the *Journal of the Michigan State Medical Society*

643

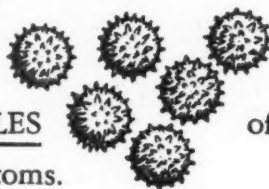
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facts and figures

The annual crop of ragweed pollen in North America weighs more than 2 BILLION POUNDS.



A single teaspoon holds more than 1 BILLION PARTICLES of ragweed pollen.



As few as 6 PARTICLES of ragweed pollen can produce hay fever symptoms.

of ragweed pollen can produce hay fever symptoms.

Hay fever patients usually receive immediate symptomatic relief following just 2 INHALATIONS in each nostril from Benzedrine Inhaler.



Smith, Kline & French Laboratories, Philadelphia

Benzedrine Inhaler

Each tube is packed with racemic amphetamine, S.K.F., 250 mg.; oil of lavender, 75 mg.; menthol, 12.5 mg.

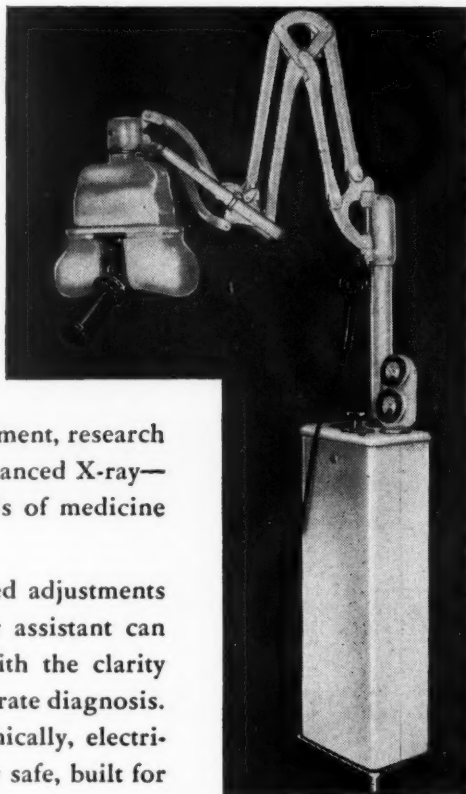
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*Each serving made with 8 oz. of milk; based on average reported values for milk.

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The promise of penicillin . . . precious, life-saving antibiotic derived from *Penicillium notatum* . . . will not be fully realized until this drug is available in sufficient quantities to work its miracles in every city, town, and hamlet in the country.

Cheplin Biological Laboratories are actively engaged in the production of penicillin and are making intensive efforts to increase its output to the point where all restrictions on its civilian use can be removed. We are doing our utmost to speed the day when this drug will be found in every physician's bag and every pharmacist's prescription room.



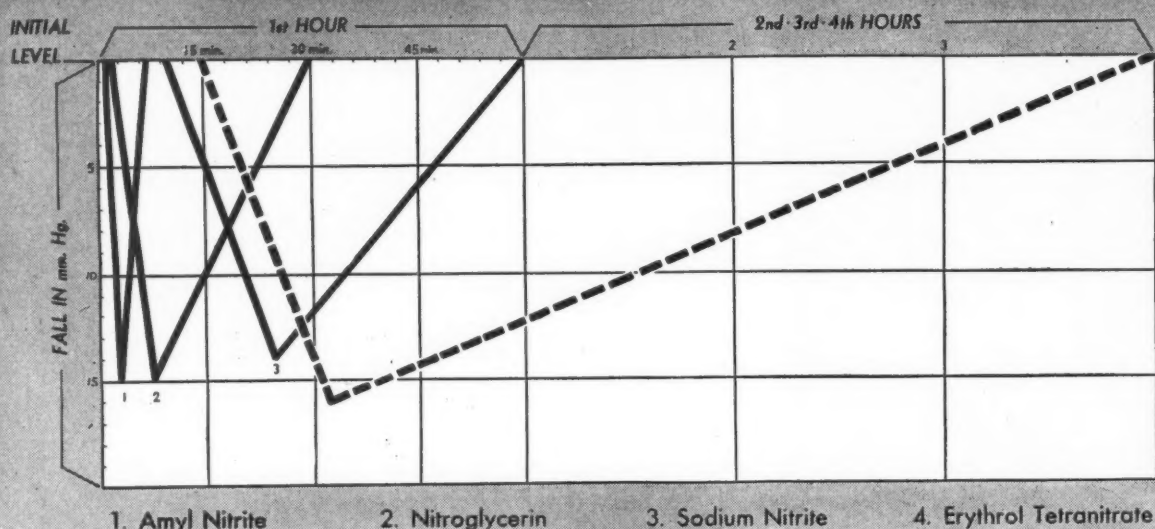
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Treatment of arterial hypertension today is necessarily directed toward relief and not cure. When such measures as rest and dietary control have been unsuccessful, the employment of medical treatment is suggested. Among the various preparations available, Erythrol Tetranitrate offers the advantage of producing a reduction in blood pressure sufficiently prolonged so that administration three times daily may maintain the reduction. Erythrol Tetranitrate Merck may be prescribed over a protracted period with sustained effect. By dilating the peripheral arterioles, it tends to decrease not only the stress of excessive pressure on the arterial walls, but also to relieve the burden of the heart.



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Ointments made with the Vanol base are 30 to 50% more absorbent and effective than those made with the traditional ointment base.

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A porous, antiseptic, healing ointment. Containing: rosin, beeswax, phenol and bile salts.

For the treatment of carbuncles, boils, burns, sunburn, varicose and chronic ulcers. Oxfel is ideally suited for the relief of pain and inflammation in the course of treatment for hemorrhoids.

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Vanol Protective Cream is prepared to provide protection against skin hazards. It forms a coating over the skin wherever it is applied. Clinically non-allergic and nonirritating, it is prescribed by physicians for factory and home use in occupational dermatitis.

Vanol Protective Cream is applied like a vanishing cream. It is applied before work is begun. As the cream disappears into the skin it forms a protective film which is the barrier that affords the safeguard against industrial dermatitis. After work Vanol Protective Cream washes off with warm water.

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Contains: bile salts and phenol 1% in an oil in water emulsion base of the washable type.

Antiseptic, anesthetic and germicide. Highly recommended in the treatment of varicose and chronic ulcers, hemorrhoids, burns and sunburn. Also found to be beneficial in occupational dermatitis.

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CALAMINE 17%

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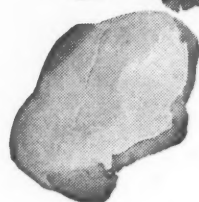


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This velvet-smoothness lessens the possibility of irritation during use.

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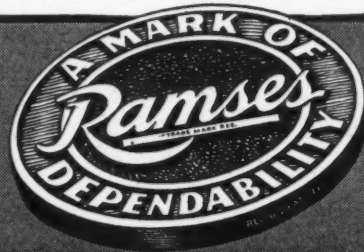
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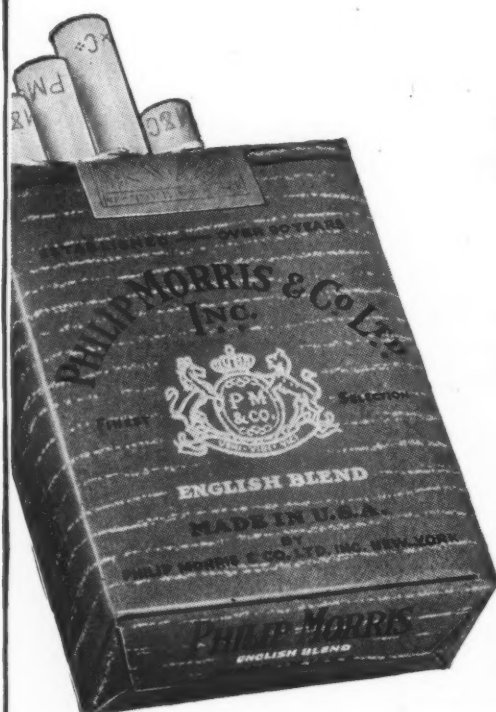
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PHILIP MORRIS Cigarettes are *made* differently. From a different formula. With a different effect on smokers' throats.

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**Laryngoscope*, Feb. 1935, Vol. XLV, No. 2, 149-154. *Laryngoscope*, Jan. 1937, Vol. XLVII, No. 1, 58-60. *Proc. Soc. Exp. Biol. and Med.*, 1934, 32, 241. *N. Y. State Journ. Med.*, Vol. 35, 6-1-35, No. 11, 590-592.

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